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FUTURE PUBLISHING, BEAUFORD COURT, 30 MONMOUTH STREET, BATH BA1 2XF
TEL • 0225 442244. FAX • 0225 446019

EDITOR Sophie Lankenau
ART EDITOR Harriet Athay
TECHNICAL EDITOR Karen Donaghay
STAFF WRITER Martin Le Poidevin
DESIGN ASSISTANT Paul Tudor
AD PRODUCTION Frances Peters
ADVERTISEMENT MANAGER Elaine Brooks
ADVERTISING EXECUTIVE David Coultas
ASSISTANT PUBLISHER Simon Stansfield

AD SERVICES COORDINATOR Annie Gronow
CIRCULATION DIRECTOR Sue Hartley
PUBLISHER Kevin Cox

ART CONTRIBUTORS
ARTWORK Barbara McGavin-Edwards
COLUMN ILLUSTRATIONS Jolyon Webb TEL • 0225 317942.
COVER PHOTOGRAPHY Jonathon Fisher TEL • 0225 332626
PHOTOGRAPHY Paul Cox TEL • 0272 668477

COLOUR ORIGINATION RCS REPRO, Torquay TEL • 0626 334545
PRINTED AND BOUND BY CHASE WEB, St Ives Company, St. Austell, Cornwall
DISTRIBUTION (UK and EIRE) MMC ltd TEL • 0483 211222
(OVERSEAS) COMAG Ltd TEL • 0895 444055

FUTURE PUBLISHING, THE OLD BARN, SOMERTON, SOMERSET TA11 7PY.
TEL • 0458 74011
MAIL ORDER QUERIES Kelly Porter

SUBSCRIPTION ENQUIRIES Christine Stacey TEL • 0458 74011

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8000 Plus is an independent publication. Future Publishing Ltd have no link with Amstrad plc. We welcome contributions from readers – please enclose a SAE with submissions if return of the material is required.
Payment for accepted articles is made 4 weeks after publication date.
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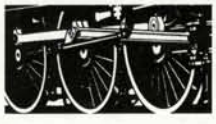

LOCOMOTIVE SOFTWARE
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Individually LocoScript 2 costs £29.95 and LocoFile costs £34.95

It's no secret that one of the main reasons why people have chosen a PCW to launch their computing career is because it is so reasonably priced. A complete 'package' for under £500 is sure to gladden the wallets of anyone just starting out. So what happens when you become confident with the basics, and want to move on? The cost of hardware add-ons for the PCW assumes greater financial resources of the user than is the case. The release of a budget hard disc, is therefore, a welcome one; now, more PCW owners will be able to extend their machine's performance without shattering the financial boundaries in the process. But does a moderate price tag mean a compromise in quality?Turn to the feature on page10 to find out!

However, you don't have to be investing in all the latest equipment in order to be getting your money's worth from the PCW. Making the best of the basics is just as worthwhile a pursuit. This month's fully illustrated guide to DIY ribbon re-inking is just one example of how looking after those basics will save you time and money in the future.

In response to your requests, we've got a special six page section on graphics and DTP this month, starting with our regular tutorial on Micro Design 2. Whether you are a beginner or an expert, there's something there for you. In addition, we've a bumper, five page collection of essential PCW Tipoffs for you to scan, as well as our regular look at all your LocoScript queries.

Finally, if you enter this month's competition, you could win some first class business software for your PCW. Welcome to February's 8000 Plus, and happy reading!

MICRO DESIGN 3 ON ITS WAY

Manufacturers plan to upgrade popular DTP program

Creative Technology have revealed plans to release an upgraded version of their excellent desktop publishing package, Micro Design. The new version is currently in production, and should be available later this year. Programmer Simon Hargreaves told us, "After Micro Design 2 had been around for a while, we started getting more and more enquiries about whether we would produce another version. It is inevitable for people to expect upgrades, and there is always something about one program which you feel could be improved in some way".

Details on the nature of those 'improvements' are currently scarce. Creative Technology promise to disclose more information on the program when it is nearer to completion. For this reason, it is not recommended that you try telephoning for advanced clues. 8000 Plus will keep you informed of the latest developments as and when they occur.

Meanwhile, Creative have released a PC version of Micro Design 2. The program is said to be 'ideal' for users switching over from the PCW as it is almost identical to the version for that machine. Most of the file formats used in the PCW version are compatible with the new PC version, so that any MicroDesign 2 area or font files from the PCW can be transferred and used with the PC. The significant difference between the two packages is the inclusion of high resolution printer drivers for use within the ProSCAN program.

The cost of the program is £69.95, but more good news for owners of the PCW version is that they can upgrade for just £49.95 – if you are registered with Creative Technology as an MD2 user. More details can be obtained from Creative on (0889) 567160.

Booming sales and demands for yet more features have brought about plans to upgrade Micro Design 2 later this year. The PC version of the program is now available, and will be 'ideal' for ex-PCW owners to use.

CHRISTMAS PRESENTS!

The December issue of 8000 Plus contained our bumper Christmas Lucky Dip competition, when we had over £700 worth of PCW goodies up for grabs.The response – as we're sure you can imagine – was tremendous. The 8000 Plus postman delivered literally thousands of entries to the office, and was, needless to say, rather relieved when the closing date for the competition arrived. Despite the, er, trick question about the number of birds in The Twelve Days of Christmas, there was a very high level of accuracy in your answers. These were as follows:

1. Marley 2. Illyria 3. Boxing Day 4.21 or 23 (both qualify) 5. Tchaikovsky

Now for the winners. With the drums rolling in the background, we picked the lucky recipient of the first prize, Creative Technology's handscanner. Congratulations go to Russell Chandler of Wilmington, Kent, who wins top prize. Second prize, an SCA RamPac, goes to Miss D J Twivey of Reading, Berkshire. A copy of Software Imperative's Foreword goes to G Leach of Leytonstone, London and Adrian Banfield of Buckley, Clywd. Next in line are W M Lawson of the Isle of Harris, and George Barnes, from Shipley in Yorkshire, each of whom win a copy of Composit Software's MusicPad.

The following twenty readers will each receive one of Simpell Solutions' handy Margin Makers:
D A Bell, Chaddesden, Derby; N Lewis, Woodbridge, Suffolk; D T Lloyd, Bolton, Lancashire; G M Winter, Anglesey. Wales; J Paciorek, Kings Lynn, Norfolk; S W Swain, Havant, Hampshire; A Lawton, Blackpool, Lancashire; M J Dunn, Bromsgrove, Worcestershire; Peter Owen, Liverpool; Doreen Coles, Wasdale, Cumbria; Harry Wright, Portsmouth, Hampshire; Geoff Bryan, Farnborough, Hampshire; P A Lucas, Boscastle, Cornwall; R Benjamin, Bristol, Avon; H Beaven, London; E Poulter, Tooting, London; Rev John Calnan, Cork, Ireland; J Luckie, Maidstone, Kent; Peter Morgan, Rotheram, Yorkshire and finally, John Glascodine of Glasgow in Scotland. Phew!

All prizes will be despatched as soon as we can find a postman with the strength to carry off all the goodies! In the meantime, may we offer our hearty congratulations to all of our winners!

Were you one of the winners of the prizes above in our Christmas Lucky Dip Competition?

NEWS

by Karen Donaghay

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CITIZEN'S ARE BEST?

Printer wizards Citizen inform us that sales of their new Swift 24 printer have exceeded 100,000 since its release late last year. The colour printer is the 'partner' to the wide carriage Swift 24x which we are reviewing in this month's 8000 Plus. The manufacturers attribute the high level of sales to a revival in the popularity of the 24-pin dot matrix machines. In the UK alone, sales of 24-pin printers represent 38% of the market, and in Europe, that figure is even higher.

Of course, Citizen are not responsible for providing all of the printers sold, despite their modest claim that their products are the most reliable in the industry. So reliable, in fact, that all printers come with a two year warranty on all parts and labour. Quiet confidence or over caution, we wonder...

GOING FOR GOLD

The Midas touch has proved itself very popular in the past. When gold and silver pens first hit your newsagents' shelves many moons ago, they gave rise to a flurry of stylishly penned communications on black or coloured paper. Now your PCW can do the same. Gold and silver ribbons can now be obtained from DDTP & "MIDAS" and cost £6.95 for a complete ribbon cassette, or £4.60 to install a new ribbon in an existing cassette.

DDTP also produce ribbons in a whole host of exotic colours: purple, blue, red, brown, green, yellow, and orange. These cost £4.00 per cassette or £3.60 to fit a new ribbon into an existing cassette. Once you have your metallic or coloured ribbons in place, they can be re-inked for £2.30 or £1.30 respectively.

The company also provide a scanning service for users of Micro Design. Fans of this popular DTP program can now send their photographs down to the DDTP offices to be scanned in and saved as a image-file, suitable for use in a Micro Design page. This service costs £1.50 per photograph, and a disc should be enclosed with your order.

Novel products and unusual ideas certainly seem to be the forte of DDTP. They also can provide a ribbon which allows you to transfer images, created using Micro Design, on to T-shirts : a great idea for clubs and associations.The image must first be reversed – call Creative Technology on (0889) 567160 for more details. It is then printed using the special ribbon, and ironed on to the material. The ribbon comes in a variety of colours and costs £9.45 for the complete cassette, or £5.60 for the ribbon only.

The address to write to for any of these products or services is DDTP, Freepost, Brixham, S.Devon, TQ5 0BR.

ALL TOGETHER NOW!

Cornix Software have recently announced the release of what could prove to be a winning team. They have teamed up their two most popular products – Simple Accounts II and Job Estimating. and they can now be purchased at the special price of £99 through West of Britain Business Services. Individually these products cost a total of £149.85, so this is a saving of over £50.

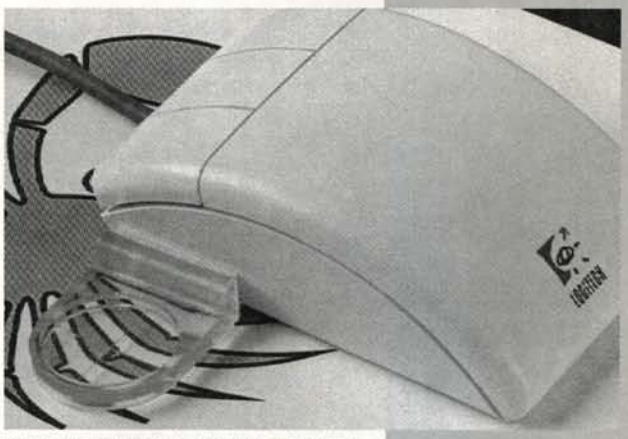
Cornix told us that the special offer was inspired by a recent customer survey. It revealed, not surprisingly, that many were self-employed, in a variety of trades such as building. They hope that this package will appeal to those who need to provide detailed costings, as well as have an accounting system.

Both programs featured in our Tools of the Trade article in the January issue of 8000 Plus, and were considered an good buy for our enterprising clock-repairer. The address to write to order the programs or for further details is West of Britain Business Services, Dept 8/1, Capel Tobi, Ffairfach, Llandeilo, Dyfed, SA19 6PR.

The popular range of business software from Cornix. Now, Simple Accounts II and Job Estimating can be 'bundled' at a discounted price

TRACING CAPER

Sidewise Ltd, the company behind the graphics tool Tracey, have been pleasantly surprised by the response to the product from PCW owners. Tracey is a small plastic lens which fits on to a mouse, ensuring greater accuracy for 'freehand' image creation. The bulk of sales were expected to be derived from the PC market, where mouse usage is far more common than for PCW owners. However, it is thanks to them that the product has been doing so well; a sure sign that more and more people are exploiting the graphics potential of the PCW. If you are interested in a Tracey, contact Sidewise at PO Box 4, Totnes, Devon TQ9 7EN. Tracey costs £7.95.



'Tracey' sales are booming thanks to PCW owners, from whom the bulk of the orders have been made

HOW TO BRAINSTORM

Brainstorm Software, producers of an 'ideas processor' program, have finally bowed to public pressure, and now enclose a manual with the Brainstorm program. Previously the company provided a copy of the manual on disc, and users had to print out their own copy. Originally intended as a means of keeping costs to a minimum, the protestations from many of their users made them rethink this plan.

Brainstorm is still available at the original price of £29.95, despite the addition of the manual. The program is designed to help people to organise their information, however random, so that their ideas can be quickly transformed into lucid written material. Further details can be obtained from Brainstorm Software, 18 Courtlands Close, Ruislip, Middlesex, HA4 8AX, telephone (0895) 677845.

ELSIE ERROR

Last month's news told of Aladdink's 'everlasting' cassette for one of the printers in the Star range. We have been asked to point out that the printer in question was the Star LC10, and not the LC24-10 as printed. Aladdink do not have an everlasting cassette for the LC24-10, but are able to re-ink old cassettes for £2.88 each. Details of this, and other re-inking services offered by the company, can be obtained by contacting them on (08907) 50965.

Graphic detail

Gerry Austin of PCW World has informed us that the independent user group now has a large library selection of graphics for a number of DTP programs. Packages supported include Stop Press, Micro Design 2, Newsdesk International and the Desktop Publisher. Owners of Fleet Street Editor Plus can have the collections offered by PCW World specially adapted.

The group are also offering a graphics conversion service. This means that the more common DTP formats, such as .CUT files for MD2, can be converted for use in The Desk Top Publisher or Newsdesk, and vice versa. The catch? None, other than to join the club, as they say. 'Phone Gerry Austin on (0384) 66269 for more details!

Dial a page

The British Telecom on-line telephone directories (Phonebase and Electronic Yellow Pages) can now be accessed by all users of Prestel, BT's public videotex service.

Phonebase is updated a staggerring 40,000 times every day, and provides details of all the UK's 23 million business, residential and local telephone numbers and addresses. EYP lists the contents of the country's 66 national yellow page directories.

The search which you request can be categorised in terms of company name, business type, or by geographical location. Even more detailed searches can be implemented, using words or phrases in the advertisement copy. This way, say British Telecom, you will be able to track down a 24 hour plumber in Plymouth who takes major credit cards.

Unlike the new view data service offered by Business OnLine (see this month' Case in Point on page 55), Phonebase charges on a time basis for its service. The standard fee is 7p per minute at peak time, and 1p per minute off peak. Although these figures do not seem immediatley likely to break the bank, a service such as this can be highly addictive, and considerably less of a grind than going throught the usual channels of communication! For further details on either Phonebase or EYP, contact BT's free enquiry line on 0800 200 700.

INSIDE STORY

Thanks to a spot of lateral thinking from the Silicon City think-tank, the PCW 8256 and 9512 can now go where no PCW has gone before . For years it has been assumed that an internal 3.5" drive is not a possibility for the PCW 8256 and 9512. Basic laws of physics imply that 3.5" disc drive will not fit into a 3" slot. Quite right too – until now, that is.

Silicon City have put together a package that allows you to fit an internal 3.5" drive to your 8256 or 9512, and the package comes complete with, wait for it, your very own file. The implement in question is, in fact,designed to chop away a small portion of the plastic casing. Peter Langford, from Silicon City assured us that, "This is a very easy job – it should only take minutes to complete the filing part of the installation." Once the slot has been enlarged the disc drive can fit neatly into place giving the very first, commercially available internal 3.5" drive.

The package comes with everything you need to install your new drive; a file, a template to mark the spot, the necessary lead, metal brackets and of course the 3.5" TX disc drive itself. There will also be full instructions provided.

In the face of what appears to be ever-dwindling supplies of the 3" internal drive, this product could be a timely development for the PCW market. It is also one which can not only extend your disc power but provide a degree of compatibility with the ubiquitous PC.The package can be obtained by writing or telephoning Silicon City, and it will cost £89.95 including VAT.

We will be reviewing this new package in the near future, so stay tuned to 8000 Plus for further details.

Meanwhile, other momentous events have been taking place at Silicon City. They have now uprooted and moved northwards to the hills and lakes of Wordsworth country, in the heart of the Lake District. They can now be contacted at Postal Buildings, Ash Street, Windermere, Cumbria, LA23 3EB, and the new telephone number is (09662) 88707.

SEEING RED

Now, we're the first to admit that the PCW is the sensible choice of machine for those working within the confines of a limited budget. Packaged printer, low cost software, longevity (almost) guaranteed - it seems like the perfect solution.

However, the normally unflustered machine has recently been spotted seeing red in the pages of the Sunday Telegraph. Apparently, a PCW 9512 is lending a helping hand to many of the Britain's debtors, in its role at the Association of Bankrupts. The Association gives help and advice to over 800 bankrupts in this country.

Unfortunately, the organisers now say that they are running out of money themselves. Dare we anticipate the advertisement of an attractively priced PCW 9512 with bundled accounts software in the pages of 8000 Plus?

BRIDGING THE GULF

Horror may well have been the reaction from the nation's PCW owners if they were watching the nine o'clock news in early January. The programme carried a story about the theft of a computer containing confidential information concerning the Gulf crisis. The machine in question was said to have been stolen from a car, but when the reporter was talking about the incident, the camera turned its attention to a rather meek looking PCW8512 sitting innocently in the corner of a room.

Could the Amstrad PCW be the bearer of important information relating to the activities of Mr Hussein and his colleagues?

PCW in Gulf crisis terror! Could a machine such as this innocent-looking 8512 have unsavoury connections with the Gulf? In the meantime, Silicon City have come up with a package to install an internal 3.5" drive into the PCW 8256 and 9512 (see 'Inside Information) The role of the PCW is ever changing...

CLUB NEWS

NORFOLK NEWS

Peter Oldman has written to tell us about a user group which has been in operation in Norfolk for the last six months. Although the club caters for computer users of various disciplines, it does have a healthy contingent of PCW owing members in regular attendance. The North Norfolk Computer Club meets at Sheringham every other week - more frequently than most groups we have heard about. All are welcome, regardless of ability, and help is on offer for those stickier PCW-ing problems. If you would like to know more about NNCC, contact Mr Oldman by letter at Kontiki, Ingworth, Norwich NR11 6PL.

DESIGNER CLUB

News has reached us of a new PCW club, specifically for users of the DTP package MicroDesign 2. The club will be offering help to both beginner and more advanced Micro Designers alike. Organiser Phil Cole plans to keep a record of those people specialising in certain areas of Micro Design, and put them in touch with each other so that they can swap advice and help. As far as Club News knows, this is the first MD2 specific club to be formed, and it sounds like a good idea. As Mr Cole points out, "When a package as strong as Micro Design 2 comes along, it seems only sensible that we should shout about it". The club will be based in Rotherham, but because of Mr Cole's plans to 'link up' users, the location is not a delimiting factor. Further enquiries can be directed to Phil Cole at 15 Elsham Close, Bramley, Rotherham S66 OXZ. Please send an SAE along with your letter. Good luck, Phil - your club sounds like an excellent idea. Keep us posted of any new developments in the future.

STOCKTON SHARES

The Teesside PCW Users' Group is expanding in leaps and bounds. Founder Gladys Baker informs us that membership has been increasing steadily since the club was formed several months ago. The schedule for the New Year includes a demonstration of MicroDesign, and a session on BASIC programming. Meetings are held once a month, and any enquiries about joining should be directed to Mrs Baker on (0642) 580018.

FINE CROYDON-TIALS

We have just heard news of a new PCW club in Croydon, Surrey. Mr Eric Fletcher tells us that he wants to set up a group to meet regularly in he Croydon area. The club will initially cater for owners of the 8000 series of PCWs, but may well expand to encompass 9512 owners later. Enquiries about dates of meetings should go to Eric on (081) 660 4940. The planned annual subscription will be a modest £12.00.

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If you use Locoscript you should have a Rampac– but don't just take our word for it, see what the magazines say–

> The Rampac will enhance any PCW and I have no hesitation in endorsing its usefulness.
> *Amstrad PCW July 1990*

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> *8000 Plus February 1990*

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> *Locomotive Software*

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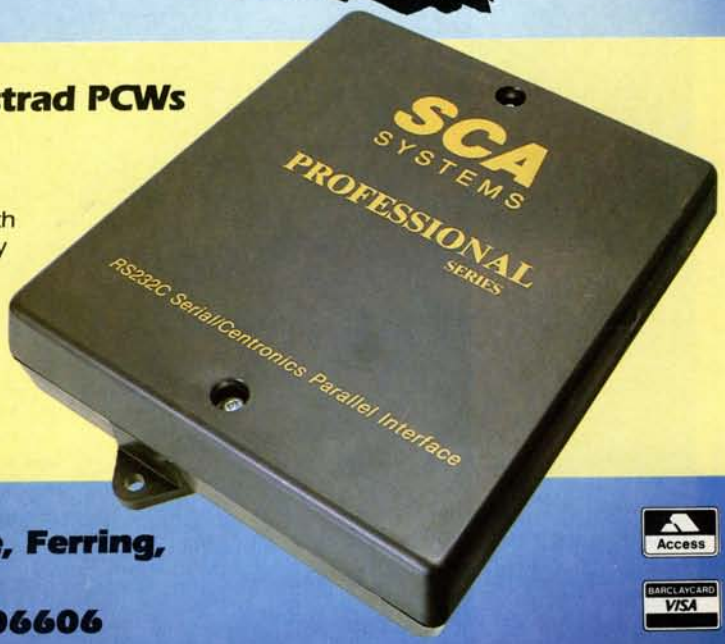

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Economy drive!

In a world where hard discs cost a lot of hard-earned cash, Karen Donaghay looks at the prospect of an extra twenty megabytes or more for a budget price

Far be it from us to make sweeping statements. The kaleidoscope of PCW owners are united in their choice of machine – but there the similarity between them ends. Their occupations, lifestyles and chosen applications for the PCW are diverse.

There can be very few items in the world of the PCW that could be of benefit to each and every one of us. There is, however, one notable exception to this golden rule, and that is a hard disc.

Whether you are a Secretary of State or just the secretary of the local Bowling Club, the facts are inescapable. Every PCW owner uses discs in one form or another, and regardless of how organised you are, the other fact also remains. Floppy discs involve you in time-consuming procedures; booting, re-booting, disc swapping, data loss – the list is endless.

So why haven't we all got one? Why doesn't the PCW come with a hard disc already installed? The answer to this question is a familiar refrain. Hard discs cost hard cash – and lots of it.

Fortunately the computer industry is one of the few domains where inflation works in reverse; if you wait long enough, hardware eventually becomes cheaper. Sometimes, however, the waiting game can become a highly frustrating process. Hanging on for the release of a cheap hard disc was beginning to feel a bit like Waiting for Godot. And then came SCA Systems. Their new product, the Vortex hard disc, is a significant step in the right direction. It is approximately £100 less expensive than its competitors.

Admittedly, this reduction does not exactly put it in the pocket money stakes (unless, of course, you happen to be that Rocker fella). What it does do is make a hard disc a more viable proposition to everyday PCW-owning folk

Hard lines

So what's it all about anyway? Why bother with a hard disc at all? Well, probably lots of people would ask the same question of the PCW itself. Until

What's yours called?

As we all know, the PCW has a unique personality. However, if you and your hard disc want to stray into the territory of certain other computers such as a PC, an Atari or even an a Amiga, then SCA are only too happy to help you do so. You will need the addition of a new "personality unit" from SCA (telephone (0903) 700288). A personality unit customises the hard disc to the machine you are using, adapting to changes in operating systems and software.

you have actually used a computer, or indeed a hard disc, it is difficult to appreciate the difference they can make.

Basically, the motivation for making the break from manual to computer systems, or from a floppy to a hard disc is simply one of convenience.

How many of you can honestly say that you are always able to locate, instantly, the disc or file that you need? How many can say that they have never ever felt just a touch annoyed at the unexpected message, "Disc Full", or suffered the frantic search for a formatted disc that usually follows.

A hard disc is huge compared to the size of a floppy. This fact alone is the secret of its appeal. It means that everything you ever wanted can be saved on to one disc. The constant irritation of searching for and swapping discs can very quickly become a dim and distant memory. What's more, with a hard disc, you can be sure that, provided you do your 'housekeeping' properly, you need never run out of space again.

So, now we've established that a hard disc is a good idea, what about the relative merits of this particular disc drive from SCA? We all know that one floppy is much like any other, but this is not true of a hard disc. They are set up and maintained in different ways. They also offer different facilities to the user, performing back-ups in different ways, for example.

The Vortex is a strong competitor in terms of price, but can it still provide you with all you need in a hard disc? Does it match up to the alternatives? And, at the end of the day, is it really worth the money? This is precisely what we set out to discover.

To find out, we tried setting up and using SCA Systems Vortex hard disc, and compared its performance to that of its closest rival in the hard drive market, the Cirtech Diamond. ➤

First gear

Many people are put off by the prospect of setting up a new drive. They assume that installing a hard disc is going to be incredibly complicated and time-consuming.

Nothing could be further from the truth. It is far easier to install this hard disc, for example, than learning how to save a LocoScript document – and most people know how to do that.

Everything you need is there in the box. Firstly there is, of course, the disc drive itself. There is also a cable. At a conservative estimate, the process of attaching one end of the cable to the expansion socket at the back of the PCW, takes about 20 seconds.

Attaching the other end to your hard disc takes roughly another 20 seconds. Inserting the specially provided CP/M boot-up disc takes, let's say 10 seconds, thereby leaving you with a fully functional hard disc in under a minute. This theory can be tested out by pressing DIR C: [RETURN] whereapon the contents of the hitherto unknown C drive are displayed on the screen.

So far the most time-consuming, and difficult, part of the whole exercise is ripping the sellotape off the box. The next task is to persuade LocoScript to recognise the new drive.

Be warned! This is marginally more complicated, and may take you a whole minute. Basically, what you need to do is copy one of the files provided with your hard drive on to your LocoScript Start of Day disc.

You put your LocoScript disc into the A drive and type in the command PIP A :=C :*.FID [RETURN]. The amended LocoScript disc can then be used to boot up the system as normal. What could be an easier process than this?

One thing to bear in mind when setting up your disc, is to put it in a safe place, where it is not going to be subjected to constant knocks and other sudden movements. And that really is all there is to it.

It's not a bad idea to keep your modified version of LocoScript on the reverse side of your new CP/M disc. (As always, take care not to use the master copy – keep that somewhere safe.)

Although you cannot actually boot up from this hard disc, it is much nicer to have just one solitary floppy to rely on, rather than hundreds.

Once you have started up the system, the floppies are no longer needed. You can then put your trust completely in the hands of the Vortex hard disc.

Second gear

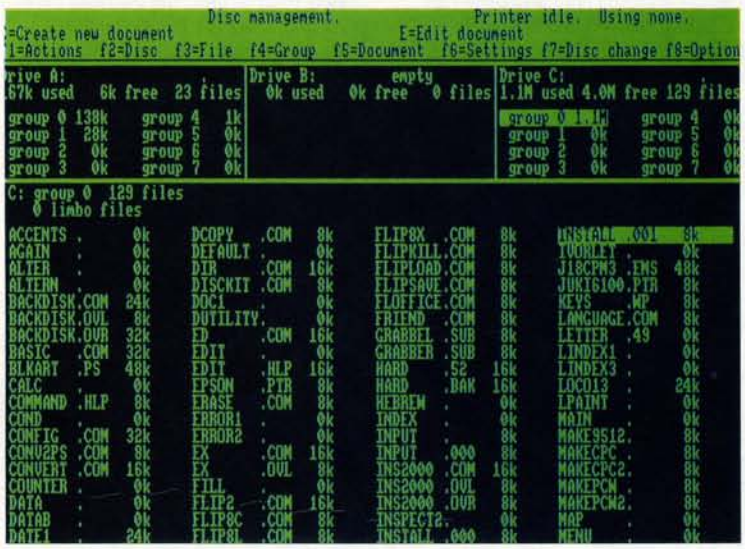
The next step is actually using the drive. The drive is, in fact, divided into four 'partitions': C, D, E and F. A partition is no flimsy dividing line; it effectively allows you to treat the hard disc as four completely separate drives.

The reason for this bright idea is that, with such large amounts of information on one disc, the partitions provide a very convenient way of dividing the terrain. Programs, for example, could all be stored on the C drive. LocoScript documents could all go onto the D drive, and other forms of data, such as the figures from a Cracker spreadsheet, or the pages made using Micro Design 2 could take up the other two partitions, E and F.

As long as you boot up using your specially prepared A drive discs, the hard disc can be used in the same way as any other disc. (There is, in fact, a disc management menu, accessed by the command sys2000 that allows you to create new CP/M boot up discs, by choosing the option 'bootdisc'.)

Once you are in CP/M, proceed as usual. To change your current drive to the C drive, for example, simply type in C:. In LocoScript, things are even easier. The files will simply displayed on screen in the normal way, although user groups suddenly become a necessity, just to break up the huge number of files.

The number of partitions the disc is divided into is up to you. If, for instance, you would rather just have one large partition, instead of four partitions, this can be changed but it means you lose all the data on your disc. To get round this, backup your hard disc before you set up new partitions (see the box 'Driving Carefully' to find out how).



The screen above is a good example of just how many files you can fit on to one partition of the hard disc, and just how neatly this fits into the normal LocoScript run of things. The files on the C partition are displayed in the normal way on the screen

Blocks away?

When you are a hard disc, bad blocks are a part of life. Information is stored on disc in sections, called blocks, which can sometimes be damaged - a common enough mishap. The question is what to do about it. The Vortex disc can mark the damaged block, and in a backup you have to choose to ignore it. That is why regular backups are so important – especially since there is no disc doctor available for PCW hard drives. Yet...

Loco Talk

The hard disc is available for the whole range of PCWs. There is however one proviso. It only works with LocoScript 2, Version 2.16 or later. To lend a helping hand, SCA have teamed up with Locomotive to provide a free copy of LocoScript II and LocoFile to buyers of the 40 megabyte disc upwards.

Drive carefully!

When you have a hard disc that is much bigger and more important than any other disc in your collection, it makes sense to look after it carefully and make sure that it can withstand the knocks of everyday life.

It's upsetting enough when a mere floppy falls prey to one of the mysterious Disc Diseases, but can you imagine losing your whole collection of hard drive files? Fortunately, a hard disc is far more resilient than the delicate floppy. Nonetheless, there are still precautions that can, and should, be taken against such a disaster ever happening.

Even with all the benefits that a hard disc brings, you still cannot escape backing up. This is done from the 'options' menu above

The first is to know how to 'park' the disc head. This means moving the disc head, which usually hovers above the surface of the disc itself, to a safe place. You must do this whenever you are not using the hard disc for long periods of time, or if your disc is likely to be moved or even jolted slightly.

Don't worry, it's not an elaborate manoeuvre Just type in c:park. Parking avoids any damage from the disc head, used to read information from the disc, coming into contact with the disc. When you next use the hard disc, the disc head automatically unparks itself, without any further instructions from you.

The one thing to avoid at all costs with any type of computer, is to have only one copy of your data. A complete copy of the hard disc, or any one of the partitions can be made automatically, on to floppies. It is pre-set to back up your C partition, but this default can be changed, via an options menu (see the screenshot above).

To back up according to the default option, only the command backdisc, followed by a [RETURN] is needed.

The 'restore' option on the backdisc menu does exactly what its name suggests. It the event of a disaster it restores the files from floppy back to their rightful place on the hard disc. This can be done selectively, so that you choose the files to be restored.

The best method of making backups is one that is also used for large industry computers, storing huge amounts of data. Very simply, it involves making a complete backup of the disc at regular intervals: once every day for industry stalwarts, probably once every few days for most PCW owners.

The floppy discs involved should be dated and stored in a separate place. There should be more than one set of backups at any one time (some of course will be more recent than others). The backup discs are not created in the same format as most ordinary floppies, and are only of value when used in conjunction with the 'restore' option.

There is, in addition to these facilities, a disc management program supplied ready installed on your hard disc. This allows you to perform tasks such as reformatting the entire disc. Of course, as with floppies, you lose your data in the process. Other utilities include 'mark'. This checks the disc for bad blocks and marks them so that they no longer used (see margin).

Vortex versus Diamond

The other popular hard disc for the PCW is of course, the Cirtech Diamond (reviewed in April 1990). Cirtech also produce a clip-on hard disc called the HardPak (reviewed in our November 1990 issue).

Comparing prices, the Vortex disc is by far the front runner. A 20 megabyte Vortex costs £343.00 compared to £457.00 for a Diamond disc and £499.00 for the HardPak disc (all these prices include VAT). So why the difference in price?

Well there is one very obvious distinction for the HardPak. It is a clip-on disc, which simply slots into place on the expansion socket of your PCW, making it very convenient and compact.

But what of the more standard commodity from Cirtech, the Diamond hard disc? It sits, like the Vortex, on your desk. The Vortex system is certainly the easiest one to install, yet there are some things the Diamond provides which the Vortex disc does not.

First of all, a Diamond disc can support networking, at an additional cost, which allows more the disc to be shared among several users at the same time, provided they are situated close by (see our networking feature in the September 90 issue of 8000 Plus). The Diamond hard disc also boots up directly into LocoScript or CP/M, without needing to touch a floppy, at any point.

It also has some rather fancy software; a file manager, which provides a menu-driven approach to keep your files in order, and the possibility of running your programs straight from the menu.

These options do all help to give your PCW a sophisticated veneer. Having said that, they are not absolutely necessary. The main advantages of having a hard disc come from its extra storage capacity: the additional convenience of a Cirtech disc is nice to have, but it comes at a price.

Vortex 2000 Hard Disc

Range of features	3/5
Ease of use	4/5
Installation	5/5
Value for money	5/5
8000 Plus Value Verdict	17/20

Comparison and summary

So how does the Vortex hard disc fare in our three-point test? Well, top marks for set up. This really is very straightforward. Everything you need is on the disc already. There is merely a very simple transfer of one LocoScript file to cope with.

And what about ease of use? Although, the hard disc does not have the self-booting facility, that a Cirtech Diamond disc provides, this doesn't necessarily change much (see 'Diamond versus Vortex' for a comparison of the two).

The Vortex disc manager has very little in the way of eyebrow-raising material: merely a few necessities, such as an option to format the disc. The 'backdisc' command is a very useful and quick method of backing up your disc.

All in all, the Vortex System 2000 has a distinctly utilitarian flavour. Nothing wrong with that; simple products are often the easiest to use and the best value. The various housekeeping tasks, such as making back ups, are left firmly under your control. Nothing wrong with that either, but it does mean that a good manual, which SCA assure us is in the pipeline, becomes an essential part of the inventory.

Put simply, a hard disc begins as a novelty and ends up as a necessity. The savings in time and energy can pay untold dividends. For many PCW owners, the aggressively priced Vortex disc from SCA Systems could finally bring a whole new way of working within your reach.

The Price Tag

20 Mbyte £343.85
30 Mbyte + LocoScript and LocoFile £414.00
40 Mbyte + LocoScript and LocoFile £483.00
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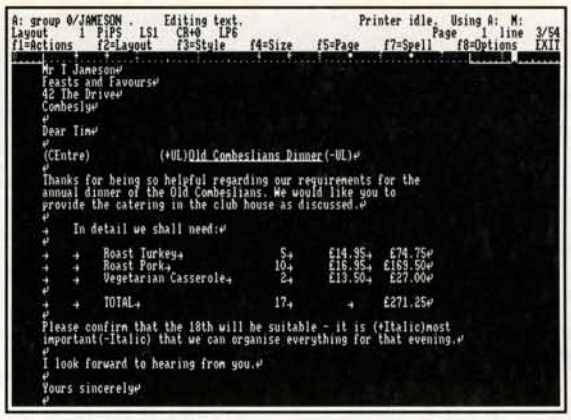

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on an Amstrad PCW8256

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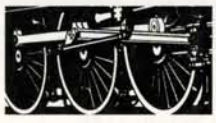

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- No fiddly typing in of teams names etc and no redundant databases.
- Instant read-out or Hardcopy if you have a printer.
- Uses scientific formula based on recent form home and away, league position, goals scored etc. It has long been realised that certain combinations of these factors return a much higher than average of draws than the laws of average would expect. POOLSMASTER looks for these factors and analyses their significance to give you the best possible chance of a win.
- Also has a 'Sequence Predictor' option. Many people believe that certain numbers on the coupon come up more often than others, and over a season patterns do seem to develop. The program analyses these patterns and predicts the numbers most likely to come up next. Certainly more scientific than sticking a pin in, or family birthdays etc.

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THE GRAPHOLOGIST

This program is a must for anyone interested in analysing their handwriting, or analysing other peoples. It is also very useful for analysing prospective employees handwriting. To use the program, a sample of handwriting is obtained, perferably in ink. From the main menu of the program you will be prompted and guided to examine each detail of the sample. You will then be taken through deeper and deeper sets of sub menus, all prompting you for relevant details of the writing, and the points to watch for, and add to the file if applicable.

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We must however stress, that unless you are experienced in graphology, then we can in no way guarantee the accuracy of the information that the program provides. If you are an enthusiastic amateur or just curious, then this program could provide hours of entertainment, whilst teaching you the finer art of this fascinating subject.

The text within THE GRAPHOLOGIST was researched and written by a top London graphologist/criminologist James Woodward. The software was written by Martin Evans our consultant software writer.

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Made to Measure

This month, Martin Le Poidevin looks at how Protext's page layout variations can transform your work - and allow you to print on different sizes of paper

The prime consideration in producing text which is going to be presented anywhere other than before your own eyes is to make it easy to read. Changing a few details in the appearance of the text and its layout will go a long way to making even the most fearsome heap of English prose more approachable.

Last month we looked at ways of doing this by enhancing the letters themselves. This, we saw, could be done by by means of emboldening, underlining and italicising.

But just as important for the appearance of a text is the way in which those letters – however 'dressed up' they are, are laid out on the page. An A4 sheet with a small amount of text sitting at the top is far less impressive than a smaller sheet which is filled with text.

In the same way, a smaller piece of paper with text spilling over the edges is unlikely to inspire the reader's confidence. It may well be that your company headed notepaper is not A4 size. If so, you can adjust paper sizes within Protext to ensure that the printer recognises the size of paper on which to print. Unlike LocoScript's rather labyrinthine pull down menu system, Protext makes changing the layout of a page very simple by using a group of short commands.

Like last month's set of commands, this month's are all linked by a common prefix. This time, however, there is no [ALT] key. Instead, all you need is ">" ([SHIFT][#] on all PCWs). Regular followers of this tutorial series will remember that this is also the command prompt for setting up a new ruler line.

The thing to bear in mind with this command prompt is that it must always come at the start of a line, and can be followed by only one command. At first the single characters can look rather awkward sitting at random places on the screen, especially if you have several at one time (each needs a new line). Don't forget, however, that they do not appear on the finished page, and Protext ignores them when it is carrying out word and line counts.

Give it room

The first such 'layout' command we will look at is double spacing. Double spaced printing is a requirement for many academic theses, and a good idea for all submitted texts. It leaves a blank line between each two lines of text. The command which Protext needs for this is LS 2 for 'Line Spacing', with the 2 indicating that the spacing is to be doubled. Protext's default printing is set at LS 1, or single line spacing.

To issue the double spacing command, finish the previous line of text with a [RETURN] so that the cursor goes to the left hand margin. Now, type in the **>**, and without leaving a space type **LS 2** followed by **[RETURN]**. Be careful about that space. If you put it before the **L** (i.e. **> LS2**), then Protext will think that you're defining a new ruler line, and all your text will come out of line.

Now type a couple of lines of text, and as you run the cursor up and down the document with the arrow keys, you will notice that the line counter at the top of the screen goes up and down not by ones, but by twos. Protext is taking your double spacing command into account as it calculates page lengths. To return to the original spacing the command you need to do is to type in **>LS1**.

Here, as elsewhere, Protext is very flexible. It does not just stop at double spacing, but can handle spacing of anything up to the length of a page. You can include half spaces – 1.5, 2.5 and so on, and if you so wish you can even specify a spacing of 0, which will simply print over the same line with two different texts. You'll have to use your imagination to find uses for that!

Documentary evidence

Our document for improvement this month is an agenda. The members of the local Golf Club are due to attend their Annual General Meeting. The original layout is the one shown in the printout above, with all the text aligned with the left margin.

You probably agree that it looks rather matter-of-fact and perhaps a little bland. An initial improvement would be to space out the actual items on the agenda. We could do this by putting in lots of returns, but it can be done much more simply by adding the command **>LS 2** at the start of that part of the text.

As soon as that part of the text ends we can return to the original spacing, with the command **>LS 1**. Remember, though, that we are not restricted to any particular spacing. We could decide that **>LS 1.5** would be better than double spacing for the main agenda, and that the last part of the message would be better in a spacing of 3.5, considering the importance it almost certainly carries for the majority of members.

Having done that, we can tell Protext how long each page is going to be. This requires a little working through. While the rest of the world works in real measurements like inches, Protext works in numbers of lines. So our first job is to convert from inches into lines.

This is fairly simple, since Protext works at 6 lines per inch. So if the paper that you are going to print on to is 7 inches long, the page length that we want to tell Protext to work with is 7 times 6, or 42.

But that is not quite the end of the story, because Protext (like LocoScript) ignores the first inch of any page. This is for the very good reason that the printer needs that inch to grip the paper, and will always refuse to write in it.

(There is a way to 'fool' Protext ➤

The difference on paper

```
IRONWOOD GOLF CLUB

ANNUAL GENERAL MEETING

February 29th 1991

Agenda
1) Minutes of last meeting and selection of Committee
2) Financial report: On Course for the Late Nineties ?
3) Green matters: Non-biodegradable tees and the ozone layer
4) Larger holes: Will the birdies nest in them ?
5) Handicap grievances: Are our members up to par ?
6) Any other business

At the conclusion of the main business of the evening,
members are invited to adjourn to the Fairway and Fowl, our
club bar, where drinks will be available.
```

Run of the mill documents like this are readable but not very inviting or clear. Information such as this can look so much more appealing..

```
                    IRONWOOD GOLF CLUB

                  ANNUAL GENERAL MEETING

February 29th 1991

Agenda

     1) Minutes of last meeting and selection of Committee

     2) Financial report: On Course for the Late Nineties ?

     3) Green matters: Non-biodegradable tees and the ozone layer

     4) Larger holes: Will the birdies nest in them ?

     5) Handicap greivances: Are our members up to par ?

     6) Any other business

  At the conclusion of the main business of the evening,
  members are invited to adjourn to the Fairway and Fowl, our
  club bar, where drinks will be available.
```

...with the addition of double spacing , centred text and revised margins - all of which allow you to use paper other than standard A4

A problem shared...

The difficulties surrounding paper sizes seem to extend to users of all word processing packages. This month's LocoScript Surgery (on page 21) looks at how to work out paper types in the PCW's native word processor

– or LocoScript – into printing at the very top of the page, which you can learn about if you turn to this month's Tipoffs, starting on page 68).

What that means for us is that if our page is in reality 7 inches long, we only need to inform Protext about 6 inches of it. So, the calculation which we go on to make should now read 6 times 6 inches, or 36 lines.

If we tell Protext about this, it will now start a new page after 36 lines of text space, which will be 7 inches of actual paper. The Golf Club paper, which our document will use, is 6 and a half inches long, so our printed page will be 5.5 times 6, or 33 lines, long. To tell Protext this we simply type in the > command prompt at the top left hand corner of the page, and then add the command **PL 33**.

From before to after on screen

```
PROTEXT  Document golfclub.bef   1K    Justify Off          Word-Wra
 Page 1   Line 1    Col 1              No markers set
|-------|-------|-------|-------|-------|-------|-------|-------|---R
IRONWOOD GOLF CLUB↵
↵
↵
ANNUAL GENERAL MEETING↵
↵
February 29th 1991↵
↵
Agenda↵
1) Minutes of last meeting and selection of Committee↵
2) Financial report: On Course for the Late Nineties ?↵
3) Green matters: Non-biodegradable tees and the ozone layer↵
4) Larger holes: Will the birdies nest in them ?↵
5) Handicap grievances: Are our members up to par ?↵
6) Any other business↵
↵
↵
At the conclusion of the main business of the evening,
members are invited to adjourn to the Fairway and Fowl, our
club bar, where drinks will be available.↵
```

The raw, untouched document on screen. Clear enough here, but not enough impact when printed out to catch reader attention immediately

```
PROTEXT  Document golfclub.mid   1K    Justify Off          Word-Wrap
 Page 1   Line 1    Col 1              No markers set
|-------|-------|-------|-------|-------|-------|-------|-------|---R
>TM 4↵
>BM 4↵
>PL 33↵
IRONWOOD GOLF CLUB↵
↵
↵
ANNUAL GENERAL MEETING↵
↵
February 29th 1991↵
↵
>LS 2↵
Agenda↵
↵
1) Minutes of last meeting and selection of Committee↵
2) Financial report: On Course for the Late Nineties ?↵
3) Green matters: Non-biodegradable tees and the ozone layer↵
4) Larger holes: Will the birdies nest in them ?↵
5) Handicap greivances: Are our members up to par ?↵
6) Any other business↵
>LS 1↵
↵
↵
At the conclusion of the main business of the evening,
members are invited to adjourn to the Fairway and Fowl, our
club bar, where drinks will be available.↵
```

Although might not look diferent here, the commands seen throughout the text are making significant changes to the final page layout

```
PROTEXT  Document golfclub.aft   1K    Justify Off          Word-Wra
 Page 1   Line 1    Col 1              No markers set
|-------|-------|-------|-------|-------|-------|-------|-------|---R
>BM 4↵
>TM 4↵
>PL 33↵
>CE IRONWOOD GOLF CLUB↵
↵
↵
>CE ANNUAL GENERAL MEETING↵
↵
February 29th 1991↵
↵
>LS 2↵
Agenda↵
>SM 10↵
1) Minutes of last meeting and selection of Committee↵
2) Financial report: On Course for the Late Nineties ?↵
3) Green matters: Non-biodegradable tees and the ozone layer↵
4) Larger holes: Will the birdies nest in them ?↵
5) Handicap greivances: Are our members up to par ?↵
6) Any other business↵
                                                              R↵
>LS 1↵
>SM 8↵
↵
At the conclusion of the main business of the evening,
members are invited to adjourn to the Fairway and Fowl, our
club bar, where drinks will be available.↵
```

The finished document prior to printing. It incorporates double spacing, adapted margins, and centred text - believe it or not!

Marginal activities

If you were now to add a couple of carriage returns after the text and run your cursor up and down the document, you would discover that far from giving you 33 lines before changing the page, Protext only allows you 27. Why is this? Is there something wrong with the command, or is there another inch which the computer needs which we've forgotten to tell you about?

The answer is that the extra inch is included in another group of settings which Protext automatically loads when you start it up. These are the margin settings. Protext (in its default state) leaves a margin of half an inch all around your text, (in addition to the inch at the top). It is the half an inch above and below the text which make up those six apparently 'missing' lines.

We can, of course, alter these if the text – and the document – needs it. It may be, for instance, that the heading on your notepaper takes up over an inch and a half of space. In that case you will need to leave a larger top margin – instead of 3 lines (plus the aforementioned 'gripping' inch) you may need 6 lines (two inches in all). To set this, type in **>TM 6** (for Top Margin).

On the other hand, your very impressive list of directors at the bottom of the document may be nearly an inch deep, so you need the bottom margin command **>BM 6**, which means that the printer will stop printing an inch from the bottom of the page.

For the Golf Club, we need an extra sixth of an inch top and bottom, so we tell Protext that we want top and bottom margins of 4 lines (a sixth of an inch above what it is already using) each. Again we type in the commands at the top of the document, so that they will take effect immediately, and again they must be at the left hand side of the page, each on a new line.

Side-stepping

Protext can also change the side margins. We might decide, for example, that the items for discussion on the agenda may look better indented from the rest of the text. You could achieve this by putting a tab before each line, but that would be more complicated than is actually necessary.

Instead, all you need to do is tell Protext to change the margin. A little painless mathematics is involved once more (see margin note). As with the top and bottom margins, Protext thinks of its side margins in terms of characters rather than inches. The number of characters per inch depends on what size characters you are using. If you are using the 'pica' size of print (which uses 10 characters per inch, and is the Protext default size) then your margin calculations will be based on the equation of 1 inch = 10 characters. If you are using the smaller 'elite' then 1 inch = 12 characters, and if you are using condensed text, then the number to work with is 17.

So, if we decide to make the left hand margin for our agenda items an inch rather than half an inch, we need the command **>SM 10** (for 'Side Margin'). But remember that when you want to reset your left margin the setting you want will not be **>SM 0** (which would return you to the extreme left of the paper) but **>SM 5**. So now we can indent the items on the agenda in our document and make the layout of the text even clearer.

Notice that the **SM** command only applies to the left hand margin. There is no direct command to change the right hand margin – it is often useful to be able to indent the left hand margin without affecting where the text actually ends on the right. If you do need to alter your right hand margin, simply define a new ruler line (by typing in > and inserting an R where you need your right hand margin to be. Use the 'col' indicator at the top of the screen to ensure total accuracy).

When you have finished with that new right hand margin, simply call up the original ruler line, using the command **>D** (for Default ruler). Don't forget, you never have to leave the Protext 'edit' mode when you want to initiate these commands.

In our case, the text at the end of our document seems to require this sort of treatment. In fact, by using the **>SM** command at the same time we are combining the two sorts of margin adjustment available.

On the central line

So we have made some quite significant changes to our rather unimpressive original document. One more command to add the icing on the AGM cake: the **>CE** command, which will centre any text that follows it on the same line (but only on that one line, like LocoScript's **[+]ce** command).

Protext's centring command will be very useful in defining the title lines of our document more clearly.

Incidentally, Protext even has a built in calculator to assist you with all those page length calculations. This can be accessed from the 'command' section of the screen. Press the [STOP] key, and at the prompt, type in **calc** then press [ENTER}. Protext uses the + and - signs in the usual way, with * and / for multiplication and division respectively.

One final point to remember. Don't worry that you have too many command lines in your text. As you can see in the third screenshot on this page, the document is now awash with extra command lines. It all looks rather confusing, but try to remember that none of these will be printed out, and there will be no blank lines. When your new, improved document emerges from the printer, all those commands will have disappeared. Only their effects will remain. ●

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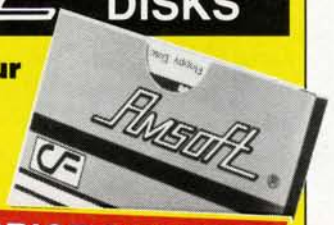

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Try it for Size!

This month, Loco expert Liz Bruce takes a look at how to alter paper sizes in your favourite word processor, and how to use different sized labels for printing

Q *I need to be able to print on a size of paper which is larger than A4. How do I get the printer to believe the paper really is longer and let me use all the space?*

A We've had a lot of letters on this subject, which is really the question of how to set up a new paper type.

Your LocoScript 2 disc came already set up for certain paper types, usually A4, 11" continuous, A5 and 2" labels. In fact, you can have up to ten paper types available at one time. (If, for any reason you need more, you can keep a different "Settings Standard" file on a second start of day disc and use as necessary).

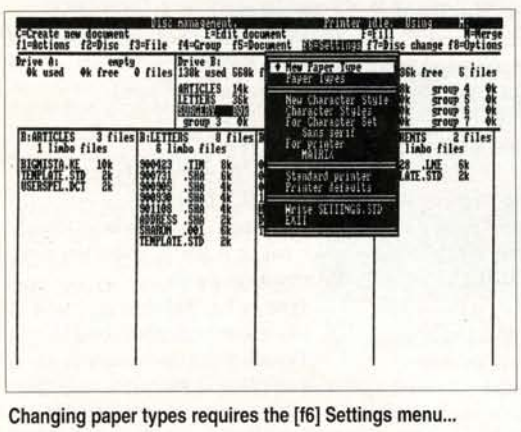
But how do you go about setting up a new paper type and why do so many people get into trouble with this?

Let's take a hypothetical piece of paper which is 15" high and 10 and 5/6" wide. We'll discuss why we measure in sixths in a moment.

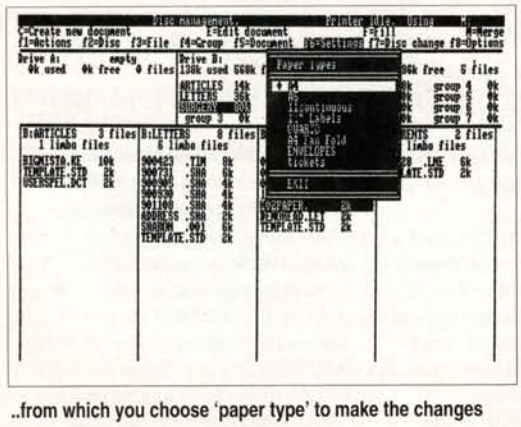
If you load this paper into the printer and carry on with everything set to A4, a great deal of the paper will not be printed on. What we need to do is to find a way to tell the printer about the dimensions of the paper we wish to use.

The first thing to do is to get out your start of day disc and put it in drive A (top of 8512, only drive of other machines). If you've been following my earlier sessions, your start of day disc will be 'write protected'; you need to 'write enable' it, by pushing the little slides back up or over so the tiny holes are covered again.

With the start of day disc in the drive (don't forget to press f7 for disc change), you need the Settings menu, directly from the Disc manager screen. Please note that you don't need to go into printer mode to set up these new types. That's the first thing which gets people into trouble; they assume that to set a new type of paper for the printer, they have to be looking for a printer menu. In fact, all you need to do is press f6 directly from the disc manager screen.



Changing paper types requires the [f6] Settings menu...



..from which you choose 'paper type' to make the changes

The menu which comes up on the screen (see the first screenshot) is the settings menu which allows various selections and changes to be made. The point about this menu and the reason we do this on the start of day disc is that these changes are fundamental to the program. In other words, once these changes have been made, the computer will always know about them when it is running LocoScript, not just when a certain disc is loaded.

The cursor is set on 'New Paper Type' but in fact the first step is to move down one and select Paper Types and press [ENTER]. The menu which then appears (see the second screenshot) shows the paper types which the printer already knows about, which you will be able to select by going into printer mode, pressing f3 for Paper and selecting the type you need.

We're looking at this menu first because, as with most things in LocoScript, it is easiest to pick something close to what you actually want and then amend it. In particular, when setting up new paper types it makes life a lot easier if you first set the paper type to either single sheet or continuous to be the same as the one you want to create.

In this case, as we are going to set up a paper type which is a single sheet and which is bigger than A4, we will leave the paper type selected as A4.

To see how the computer defines a particular paper type, put the cursor on it and press ENTER.

If we inspect A4, we can see that A4 is single sheet, with it's height defined as 70 and width as 50. A top and bottom gap are already set and the 'Ignore paper sensor' is ticked.

So, where do the numbers for height and width come from? You may remember that in the session on printing, I mentioned that the printer works at 6 lines to the inch and that's how you work out the figures: measure in inches and multiply by six.

A4 is just over 11.5" high and about 8 and 1/3" wide. If you have a ruler which measures in sixths it makes life easier but in fact it doesn't matter if you're not completely accurate. Err on the smaller side, though, rather than the larger, to make sure there's no chance of printing off the ends.

The width is calculated the same way, to keep things simple.

(Warning to any Locoscript PC users who may be following these surgeries: the height and width of paper are measured slightly differently.)

Mind the gap

The top and bottom gap are fixed for single sheet paper and should be left alone as the printer knows it cannot hold the paper firmly enough to print on these very top and very bottom lines.

Now press [EXIT] and [ENTER] to go back to the original settings menu, put the cursor on New Paper Type and press [ENTER].

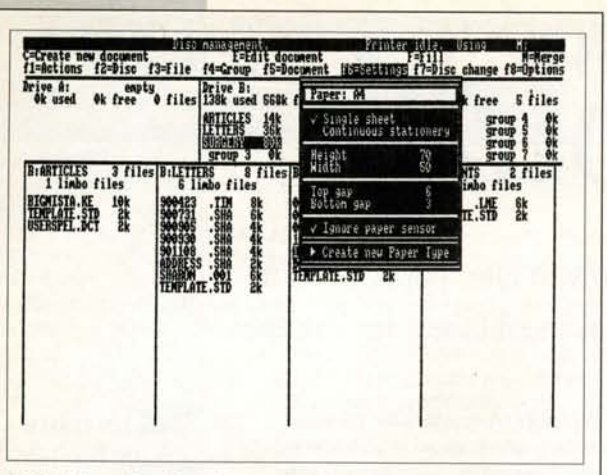
The menu which then appears (see the first screenshot overleaf) will be set up for the type of paper you selected when you looked at the paper types ➤

Tell us more

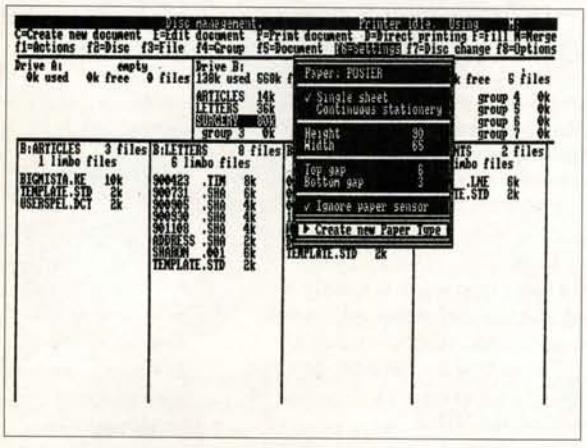
Loco Tips are the pages where you can have your LocoScript queries and problems dealt with by an expert.

Liz Bruce trains people to use the program in Scotland, and has a wealth of experience on the subject. If you have any questions you would like to put to Liz, send them to LocoScript Surgery, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW.

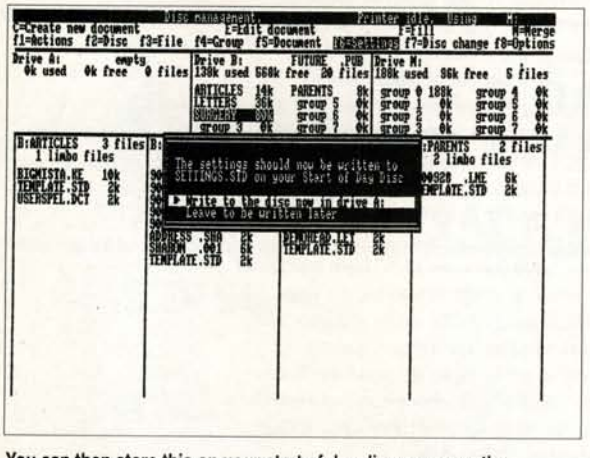
Remember, the more letters we receive, the more topics we can cover each month. So, don't be shy; if LocoScript has you tearing your hair out, expert help is at hand!



All the information about A4 paper is shown here...



...and this is how it looks when it is reset for the size of your choice



You can then store this on your start of day disc permanently

Able labels

When you ask for labels at a stationery shop, be sure to specify that they are for a word processor. Typewriter labels do not have the tractor feeding at the sides, so will slip out of your printer's grip when you use them.

on offer; in this case, A4. The cursor is on the name and the first thing to do is to type in the name of your new type; we'll call this one POSTER.

You can make the old name disappear before you start, if you like, by pressing the [-] key, that's the settings key at the right of the space bar on the 8 series machines and at the bottom of the left function keys on the 9512.

The first trap many people fall into is to press [ENTER] after they have put in the new name. If you do that, you will have a new paper type and your new name will appear on the list of paper types but it will still have the height and width values of the old type. So don't press [ENTER], just use the cursor to move down.

As we selected a similar type before we started, we don't need to worry about the single sheet or continuous stationery section, as single sheet is already ticked.

If for any reason this selection is not right, just use your settings keys, the [+] and [-] to make the correct selection.

The next section is the height and width. Measure your paper in inches and multiply by six. Our hypothetical piece works out at height 90 and width 65. When you type in these numbers, you do need to press [ENTER] after the number to tell the computer you have finished entering figures. Leave the top and bottom gaps alone.

Sensor sensibility

The bottom section is the paper sensor and here is another good reason for selecting a similar type before you start, as thinking about whether this should be ticked or not tends to cause brain strain!

For the record, the paper sensor senses when a sheet of paper is nearing the end. It needs to be operating when you use continuous paper so that if the paper runs out half way through the print run, the printer will not keep going, printing on to the platen. However, the sensor has to be ignored if you're using single sheets, otherwise the printer would keep stopping before the end of the sheet and telling you the paper is finished.

Continuous paper does not have the tick and so does not ignore the sensor. Single sheet paper does have the tick and does ignore the sensor. Simpler to set the paper type to a similar type before you start! You can always check whether this should be ticked or not by looking at a paper type already set up and seeing if the tick is present or not.

When the menu is completed, so it looks like the one in the second screenshot on this page, move to 'Create new Paper Type' and press [ENTER]. Do not just press [EXIT] or [CANCEL].

A message will appear on the screen (third screenshot on this page) and now you understand why we put the start of day disc in before we started – it simplifies matters now. With the start of day disc in drive A we need only press [ENTER] and the new paper type will be written to the Settings file on your start of day disc.

If you press [f6] now and select paper types, your new paper type will be on the list, as it will also be if you go into printer mode (either press [PTR] or pull bail bar forward to load paper) and press [f3] for paper.

The new paper type will be available in future as long as you start the machine with that start of day disc. If for any reason you make a new start of day disc from your master disc, your new paper type will not be present so you will have to set it up again.

Remember, this is only half the story. To use your new paper type properly, you will have to set up a template for that size of paper as well, with the margins in the right places and your new paper type selected on the paper menu which is in the Document Set Up. It is no good just typing something using a template which was set up for A4 (and if you don't tell the machine different, that's what you will get), selecting your new paper type at the printing stage and expecting the computer to guess where the margins and page breaks should be for that type of paper.

This makes sense; after all, you are the one who knows where a section of text begins and whether it should be on a new page, the computer does not, and you cannot expect it to guess!

Q ***We use a lot of address labels and prefer to use the 1.5" ones but the printer only allows us to select 2" labels. If we load the printer with the 1.5" labels, the printer still uses a 2" gap and keeps printing further and further down the labels. Do we have to use the 2" labels?***

A No, you certainly don't. Actually, most people do seem to prefer the 1.5" labels; I don't know why Locomotive chose to use 2" labels as the standard selection.

The last answer really answers this too, but this is such a common question that it is worth running through a step by step guide.

1. Put your start of day disc into the A drive and press f7. Make sure it is not write protected first.
2. Press [6].
3. Move cursor down to 'Paper type'.
4. Press ENTER
5. Put cursor on 2" labels.
6. Press [EXIT].
7. Press [ENTER].
8. Select 'New Paper Types'.
9. Press [ENTER].
10. Press the [-] settings key (left of space bar on 8 series, under left hand function keys on 9).
11. Type in **1.5" labels**.
12. Move cursor down to height.
13. Type in **9**.
14. Press [ENTER].
15. Move cursor down to 'Create New Paper Type'.
16. Press [ENTER].
17. With the cursor on 'Write to disc now in drive A' press [ENTER].

That's all there is to it. You can, if you wish, alter the left offset, which controls how far out from the left the printer will start to print and you can also alter the top and bottom gaps. These can actually be 0 when you are using continuous paper but you would have to be very accurate in where you position the first label for printing, so it's not recommended. It is probably better to allow one line at the top and bottom of the label to minimise the risk of one address running on to the top of the next label. ●

"A powerful, versatile and highly professional tool" 8000 PLUS, September 1990

FOREWORD

THE WORD PRE-PROCESSOR

● FOREWORD is the new program from Software Imperative, the people who brought you FLIPPER. It's a tool for writers: not just authors (though they'll certainly want a copy) but letter writers, report writers, sermon writers – in fact, anyone who works with words.

FOREWORD bridges the gap between ideas and finished pieces of text. It helps you put your thoughts into words, without worrying where those words will fit on the page or what typeface they'll be in.

● A carefully designed menu system makes FOREWORD easy to learn and use.

"BUT I'VE ALREADY GOT A WORD PROCESSOR."

FOREWORD isn't a word processor, nor is it intended to replace one. Word processors are tools for presenting text on paper, and most of them do this very well. FOREWORD is designed for the stage before this, the creative stage of writing where your ideas are still too vague or unstructured for normal word processing. That's why we call it a "word pre-processor".

FOREWORD is specially designed to stop you getting bogged down in detail as your document grows. With a word processor, as soon as your text takes up more than a screenful you start losing that all-important "big picture" – the overview of your work that's the key to good writing. FOREWORD's powerful "Hide" and "Show" functions give you back that overview. Even when you've typed in thousands of words you can still get a clear picture of your piece at the press of a key, collapsing the on-screen document down to its bare bones.

● Writing for print? Then you'll appreciate FOREWORD'S fast, accurate word counter.

FOREWORD also shuffles ideas around far better than a WP can. The "Move" function lets you pick up an idea and move it wherever you like within the document, regardless of how much text the idea comes with. There's no block-marking involved: whether it's one sentence or a hundred, you can pick an idea up or put it down again with a single keypress.

"SO WHAT HAPPENS WHEN I'VE CREATED MY TEXT?"

Because FOREWORD doesn't deal with typefaces or layouts, you'll need to get your finished text into a word processor or DTP package before you can present it attractively on paper. Normally, transferring data from one program to another is a fiddly, time-consuming business, but FOREWORD makes the task quick and easy.

For one thing, there's no need to quit FOREWORD to use your word processor. FOREWORD is a pop-up program: it can share memory with Locoscript 2 or CP/M, hiding "in the background" until you summon it. Just hit SHIFT-ALT-EXTRA and in 1 second you'll be looking at the FOREWORD editing screen. Hit SHIFT-ALT-EXTRA again and 1 second later you'll be back in CP/M or Locoscript 2, exactly where you left off.

Also, you don't have to save ASCII files in FOREWORD and import them into your word processor. FOREWORD's "Transfer" function can force your text directly into a word processor document as if you were typing the words yourself. (Of course, if you find Transfer's 150-200 words per minute a little slow, FOREWORD is quite happy to save your text as ASCII: it supports two different kinds, plus a special format for WordStar and NewWord users.)

SOUNDS COMPLICATED?

Don't worry: FOREWORD has a carefully designed menu system you'll be able to master in minutes. What's more, FOREWORD supports all those special-purpose keys you're used to, like UNIT/PARA, WORD/CHAR and LINE/EOL. CUT and COPY trigger lightning-fast block operations, EXCH/FIND gives you speedy search and replace functions, and PTR summons the Printer menu. (We couldn't find anything for the RELAY key to do: FOREWORD reformats its paragraphs automatically, as fast as you can alter them.)

FOREWORD's even easy to install: it comes on a self-booting disk you can back-up and use immediately. No need to copy files or fiddle with PROFILE.SUBs – just switch the machine on, pop FOREWORD in the drive and it'll load automatically.

VITAL STATISTICS:

FOREWORD has a fast, accurate word-counter, can edit up to eight documents at once, and has no maximum file size. It takes a minimum of 112K of RAM, and a maximum of 2 Mbytes – the most a PCW can be fitted with.

FOREWORD is fully compatible with Locoscript v2.16 onwards (including LocoSpell, LocoFile etc), and with all legal CP/M programs. To run FOREWORD you'll need a PCW with at least 512K of memory. FOREWORD supports all SCA and Isenstein memory add-ons. For use with FLIPPER 2 PLUS, and with non-legal CP/M programs like Mini Office and Microdesign II, extra memory is essential. (FOREWORD won't work with earlier versions of FLIPPER, but you can upgrade these for free if you order FOREWORD at the same time.)

FOREWORD DOES NOT SUPPORT:

- File passwords and file time/date stamping;
- Foreign-language keyboards;
- Hard drives;
- Printers on external serial/parallel interfaces (though the 9512's built-in parallel port is fine);
- Single-density or single-sided B: drives (though 720K 5¼" or 3½" drives are okay).

DON'T FORGET:

We still sell the absolutely essential FLIPPER 2 PLUS. This is the only utility that lets you split your PCW between CP/M and Locoscript 2 (or between two lots of CP/M – or even between two lots of Locoscript 2, if you've got the memory).

In as little as two seconds FLIPPER 2 PLUS can whisk you from one side to the other, without losing your place. Why reboot every time you need to get between CP/M and Locoscript 2? FLIPPER 2 PLUS can do the job quicker and better. (FLIPPER 2 PLUS requires at least 512K of RAM, and is fully compatible with SCA and Isenstein memory add-ons.)

i SOFTWARE IMPERATIVE

Software Imperative, 11 Chapel Row, Queen Square, Bath, Avon, BA1 1HN, proprietor A.J.Wilton, tel (0225) 425315.

Please send me: ● 8

☐ FOREWORD – I enclose a cheque/PO for £39.95
☐ FLIPPER 2 PLUS – I enclose a cheque/PO for £29.95
☐ FOREWORD AND FLIPPER 2 PLUS – I enclose a cheque/PO for £64.90 (save £5)

Please upgrade the enclosed FLIPPER/FLIPPER 2 master disk to FLIPPER 2 PLUS:

☐ I enclose a cheque for £5.00
☐ I've ordered FOREWORD above, so I'm entitled to a free upgrade

Prices include UK postage and packing and VAT. Please make all cheques payable to Software Imperative.

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_____ Postcode _____

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Software Imperative, 11 Chapel Row, Queen Square, Bath, Avon, BA1 1HN

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Driving Lessons

Moonstone Computing's latest package reckons to solve all your file transfer problems, letting you move files freely between your PC, your CPC and your PCW. Rob Ainsley investigates

2in1
£29.95 ● Moonstone Computing (041-941 3120)
All PCWs

One of the great mysteries of evolution is how so many separate species – which cannot, of course, cross-fertilise, evolved on earth so quickly. Similarly, one of the great mysteries of computing history is how so many completely different types of machine can all be on sale, all in use, and yet be totally incompatible; discs from one probably won't even fit in another, never mind be read or written to. Anyone with a record player who's been given a load of compact discs for their birthday will appreciate the problem. Which means that if you buy a PC and want to transfer all those files you had on your PCW to it, or buy a PCW and want to transfer those files from you CPC, you have problems.

Anyway, it's a problem we're stuck with, and 2 in 1 aims to help ease these transfer hassles. The boxes beneath and opposite will tell you if it's something you can't live without; here we'll just concentrate on the program itself.

What 2 in 1 does, basically, is to show on three panels the contents of the disc in each drive. You can move a cursor around the boxes and their contents – a bit like in LocoScript's disc manager – and copy files from one to another. A fourth panel lists the functions you have available, each at a single keypress: C to copy a file, D to delete a file and so on.

Only one group per disc can be shown at a time, but pressing U allows you to select another, and 2 in 1 obligingly tells you which groups have anything in them. However, it is very slow to change groups, and the files are not displayed in alphabetical order. LocoScript's limbo files for groups 1 to 7 count as groups 8 to 15 respectively.

L logs in a new disc (like [f7] in LocoScript 2 or [f1] in LocoScript 1, except that L only logs one drive, not all three) and F formats a disc (as does [f2] in LocoScript 2). R renames a file.

So what? Aren't all these functions available in LocoScript, Protext, CP/M

Your friendly neighbourhood PC

The PC is a computer whose discs and programs follow the conventions of, and can be used on, an IBM PC (but is usually much cheaper) and is the *de facto* office standard computer. If you see computers in a workplace, it's odds-on that they're PCs. (Strictly, the abbreviation PC stands for 'personal computer' and applies to any such machine – IBM PC, Amstrad PCW, Amstrad CPC – but is not usually used in this sense now).

Some PCs use $3\frac{1}{2}$ inch discs, some $5\frac{1}{4}$ inch discs, some both, and in a number of formats (just as a PCW 8512 can format the same disc to hold two sides of 173K or one double-side of 706K). They also have a bewildering range of microprocessors, some barely more powerful in "computing horsepower" than the PCW (XTs, they're called); ATs are far more powerful (and come in various guises such as 286, 386s, 486s).

Few programs are available in versions for both PCW and PC; LocoScript and Protext are. Transfer of data between any PC and PCW can be done quite easily via a cable, though getting them set up is a pain. First they need to be in the same room – often a non-starter! Then you need an "RS232 interface" for the PCW – a box that sticks on the back of the PCW with a connection for a cable. RS232s cost about £60 mail order from 8000 Plus advertisers or in your local computer shop. Then you need a cable to connect the two machines, about £15 from your local computer shop. You can buy special software allowing you to transfer files by this arrangement but actually you can do it just as well for free using programs you already have on your supplied master discs like PIP.COM – this was described in last month's Tipoffs. However, it suffers from the disadvantage that you have to have the two machines on the same desk – impossible for many people who, for example, have a PCW at home and a PC at work.

The other way to transfer files is to have a disc drive fitted as the B drive of your PCW which takes 3.5 or 5.5 inch discs. Such disc drives by mail order from advertisers in 8000 Plus cost £120 or so (5.5") or £90 (3.5 "). Owners of 8512s – who would have to give up their normal B drive – can get special drives which can be switched with the normal B drive allowing either to be used at any one time.

By this method you can simply transfer data between the PCW and PC by using the 3.5 or 5.5 inch disc as a go-between. Though the formats vary on PCs there will always be a common format readable and writable on both machines.

The program 2 in 1 is aimed at owners of PCs who also have PCWs fitted with go-between drives like this and is useless otherwise! Unfortunately for 2 in 1, files can be copied between the discs very well on the PCW using CP/M; besides, when you buy a drive it usually comes with adequate software very similar to 2 in 1 anyway, free (indeed, 2 in 1 can be purchased with the appropriate drive from Moonstone). All of which, unfortunatley, means it's unlikely to be a vital purchase for all you PC owners.

One of the many types of PC which is the de facto standard computer of workplaces and offices

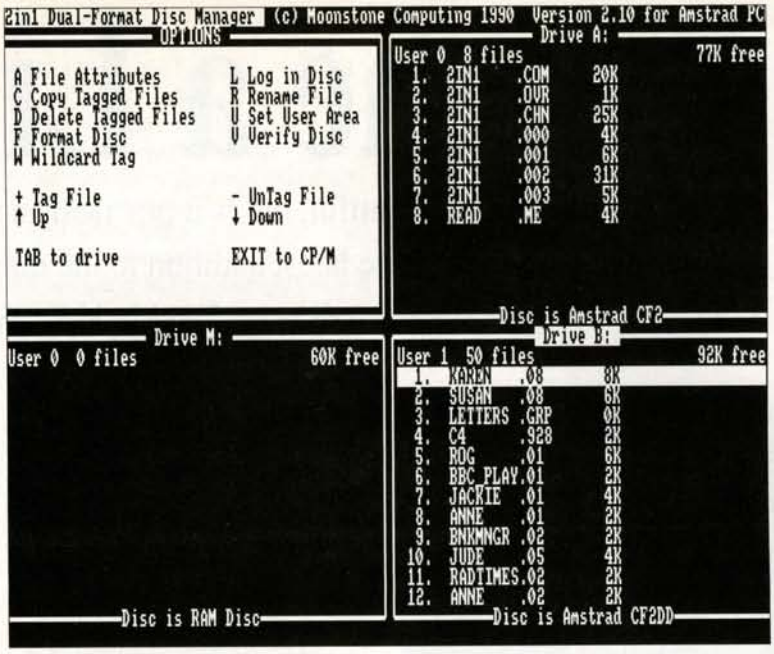
and so on? Well, mostly they are. The only advantages you have in 2 in 1 over these are that the copy and delete commands work on tagged files – in other words, you can zip through a group and tag any number of files with the [+] key (or untag them with [-]). The files you've tagged are then all copied together – obviously a great time saver if you have a lot of files to copy.

However, the copy command is very slow. Our trials showed them to be three times slower than LocoScript or CP/M's PIP; a 178K file from A to M took 25 seconds in LocoScript 2, 27 seconds in PIP, and 74 seconds in 2 in 1.

The format command, like CP/M's DISCKIT which you have already, will happily format a disc in your 3.5 or 5.5 inch disc B drive as a 360K or 720K disc (depending on whether the switch at the back of the attached drive is set to 40 or 80 tracks) so that it can be used on a PC. The format command on 2 in 1 offers you 360K or 720K formats, but also offers you the option of formatting a disc in a 9512, or the B drive of an 8512, as a 178K disc that can be used in CPC disc drives. This is excellent for 9512 owners because it means they can write onto 178K discs in their PCW and then read them on the CPC. However, such discs cannot be used in the A drive of an 8256 or 8512 – the PCW doesn't even recognise their presence. The formatting works extremely quickly and has a verify option.

The software is well written and easy to use. However, it would seem to be of limited use; if you buy an extra PC-type drive for your PCW – which you need to use 2 in 1 – it usually comes with copying software anyway, free. Also – with the exception mentioned earlier– CPC owners can use their 3 inch discs directly in the PCW with little fuss.

All in all, 2 in 1 offers little that you don't already have, and rather falls between too many stools to be considered a vital purchase. ●



The screen to 2in1 showing three panels, one for the contents of one group of each drive, and a menu panel at top left. The files are not displayed in alphabetical order.

Fine figures

Sometimes, establishing the differences between the PCW range can be confusing. However, the chaos starts at the price tag for the CPC series of machines. The 'basic' model, with tape and black and white monitor, costs £230. That's fine. If you want a tape and a colour monitor, add on £100 to that price. The same price will also fetch you a disc drive machine - but with a black and white monitor. If you want 'the works' - disc drive and colour monitor, then £430 is the asking price. Phew!

Arnold 4 Joyce 4 Arnold

Just as the PCW gained a personal nickname – Joyce, said to be from Alan Sugar's secretary Joyce whom, he joked, would be replaced by the PCW – so the Amstrad CPC is occasionally called Arnold, purportedly an anagram of Roland (Perry), one of the designers.

The three models of Amstrad CPC – the 464, 664, and 6128 are roughly similar to the PCW except that they work from cassette tapes instead of discs and don't come bundled with a printer. However, they can run CP/M and therefore similar versions of such well known PCW programs as Protext, Mini Office, Tasword, Masterfile and so on (but not LocoScript!). As a low-cost general computer they were and are unbeatable in value (just a few hundred pounds) and have a huge range of software, mostly games aimed at an adolescent market, but also many serious programs such as accounts packages, desktop publishers and spreadsheets.

The CPC 6128 is fitted with a disc drive and cassette and it is possible to copy files from the cassette on to disc and vice versa. It uses three-inch discs, the same as the PCW, with the minor difference that they are formatted to hold 178K instead of 173K. However, these discs can be read and written to as normal in Protext, CP/M, LocoScript etc. in the A drive of a PCW8256 or 8512 – though in a PCW9512 they can only be read, not written to. Users of Protext on the PCW have a program called DFORMD which can format discs in the A drive of a PCW to this 178K format – perfectly normal discs, except they have 5K more space than normal! As things stand you can only read the CPC discs in your 9512, not write to them. However 2 in 1 can format 178K discs in the PCW which are read/write-able on the PCW and also on the CPC, so you can transfer from PCW to CPC.

Here's how useful 2in1 will be to owners of CPCs and PCWs:

CPC model	PCW model	Usefulness
464, 664	*any*	*None, unless you have access to a friend's CPC6128, in which case see above*
6128	*8256, 8512*	*Not useful, as your PCW can already read/ write/ copy discs from the 6128 anyway*
6128	*9512*	*Quite useful.*

The Amstrad CPC 6128 – the extremely popular all-purpose home computer that Amstrad boss Alan Sugar reportedly launched with the lorry driver in mind as the archetypal user

2 in 1

Pluses

- ▲ Easy to use
- ▲ Formats very quickly
- ▲ Enables PCW 9512 and CPC to write to same discs

Minuses

- ▼ Supplies very little you don't already have
- ▼ Copying and changing groups is slow
- ▼ Files not displayed in alphabetical order
- ▼ PC owners need PC drives on their PCW, which usually come with their own transfer software free

Range of features	2/5
Ease of use	5/5
Documentation	4/5
Performance	3/5
8000 Plus Value Verdict	14/20

Pen me a Line!

They say that small is beautiful, but is it practical as well? This month, Alec Rae takes a look at the latest addition to the range of pint-sized computer hardware on the market - a hand-held PCW compatible printer

PrintaPen
Oyster Terminals Ltd
0633 214147 ● £299.00

"If Mohammed won't come to the printer, the printer must come to Mohammed", as the old saying goes. At least that is the kind of lateral thinking that has led Oyster Terminals Ltd to produce PrintaPen 5000 – an original way to tackle the business of printing.

Instead of the conventional thinking, where you load paper in a printer and get the print-head to run back and forward, with PrintaPen you hold the print head in your hand and manually roll it across the surface.

The process works more like a laser printer than a dot matrix printer. There are no pins striking the surface of the paper. It simply leaves ink on the surface making the shape of the letter. Ink (or probably, more accurately, toner) is supplied in small cartridges that fit inside the Printapen, which itself is hardly bigger than a household torch.

It may not be immediately obvious why you would want to use such a device. But once you start thinking about it, the ideas come flooding in. For a start, conventional printers will only allow you to print on materials that will feed through its rollers. With the PrintaPen, you can print direct on to anything that will hold ink.

The applications are, therefore, only limited by the length of the PrintaPen printer cable and your imagination. One of the first uses which springs to mind is using the pen to solve the perennial problem of addressing envelopes.

It seems outrageous to carefully print out a letter in LocoScript and then have to scrawl the address on the envelope in blue crayon. And yet to set up the tractor and labels for one or two address labels is a lot of trouble. Especially as you usually ruin about a dozen labels getting the first one lined up properly.

This is where PrintaPen should come into its own. Create files with all your addresses and then print these directly on to an envelope.

Manual labour

The process is not fully explained in the manual, and unless you have some idea what you are doing, you may well run into difficulties. However, once you have grasped the basic principles, printing with the 'pen' is a relatively quick and simple achievement.

Disc labels, ring binder labels, box files, jiffy bags, membership cards and forms, cardboard boxes and the dog can all be neatly labelled. OK. Not the dog. But that's only because he won't take the ink. Anything that you can write on, that isn't too shiny, can be printed on.

It is attached to the computer through the serial port of an RS232 interface – the box that sticks on the back of the PCW. So even if you use an external printer – normally attached to the parallel port of the RS232 – you can

Ring Binders

Ring binder labels are a perfect example of the sort of thing that you would like to be able to print but cannot fit into a printer. The label should be held down solidly on a flat surface with space around it to allow the Printapen to run smoothly – a clip board is ideal. This was printed using BASIC and the LPRINT command – one line at a time. Although quite restricted for space (try out your longest line on a piece of scrap paper to make sure it will fit) the lines on the label - and practice - help positioning. As you can see, the first attempt might not be perfect.

Membership forms

One of the more successful applications for PrintaPen. The dotted lines on the page give good guidance to positioning and spoiling one sheet will not break the bank.

Both the PIP/ASCII file or the BASIC/LPRINT method could be used here, depending on whether you want to keep a permanent record of the information. The ASCII file would be an excellent permanent record for any number of uses.

If possible, use a form where there is a fair amount of space between the lines. And, if you're worried about accuracy, practise first!

Membership Form

Surname ..... Lanheagy .....

Christian Name ..... Geoffstey .....

Address ..... The Pub next to Beaufort House .....

..... 28 Monmouth Street .....

..... BATH .....

Telephone number ..... 0225 442244 .....

I, the undersized, being of sound mind and body (honest), do hereby solemnly swear that I think 8000 Plus is absolutely **brill** and that I promise to read it every month and to type in all the listings. I confirm that I have taken out a subscription (just in case it should be sold out any month at my paper shop) and that I will keeep on reading it even although I don't have a PCW.

Signed

X (her mark)

Membership No. 0000000001

leave the PrintaPen attached, ready for use at any time.

There are notches on the print-head that allow you to line up where the text should appear on the page. A roller measures how much of the page you have covered, telling the print-head where each letter should go. The flashing light (when you print one line at a time it is a steady red light) tells you when there is text remaining in the pen still to be printed.

Of course the other main use of the PrintaPenwill be to complement portable computers such as the Cambridge Z88, the Psion Organiser and the Atari Portfolio. With this set-up, you could, theoretically, never have to call upon the mains for a supply of electricity again.

All that glitters...

Having said all that, there are some disadvantages. The type face is quite clear but thin and watery - and occasionally, if you are too violent with it, it leaves untidy gaps between letters and track marks on the paper.

The manual says that you will quickly learn how to line everything up. This may be true, but it takes a good deal of practice. It is still quite difficult to work out where the text will start to print on the designated surface. It works well if you are working on a lines page, such as a blank form, but it is really quite difficult to get the lines the right distance apart without some guidance.

You need quite a large, firm surface to work on. Because of the distance between the roller and the print head, at times you find that you cannot print at the bottom of the page because the roller is not able to gain a proper grip.

If you are going to get the best out of PrintaPen it's best to stick to quite short pieces of text. It wouldn't be suitable for printing out your novel. And no, you can't do graphics other than reconfiguring one character.

Finally, if you are not careful you can end up with a curved line of text, half a line of text or a smudge – none of which give the professional impression you want to create.

In theory this is a useful tool although it will take careful use to get the best out of it. First, though, you will need to know exactly how to get the PrintaPen working with your PCW.

Behold a Great Mystery

There are two ways of doing this, neither of which are mentioned (or even alluded to) in the manual. So if you know a fair bit about the PCW and, in particular, how to transfer files (comms enthusiasts will feel right at home), read the instructions supplied. Otherwise, read the following and ignore the manual. It'll only confuse you.

For a start you cannot print direct from a word processor. You can use your word processor to create an ASCII file for printing, but there is no simple way to print straight from inside any word processing program.

It can only be used in CP/M, so this might make it less interesting to habitual LocoScript users. You would have to reset the machine every time you wanted to use the pen, which would take away a great deal of the convenience of it.

To use the equipment you need some faithful old CP/M utilities – DEVICE.COM, SETSIO.COM and PIP.COM, available on all good CP/M utility discs. If you have any knowledge of BASIC you might also want BASIC.COM and if you own a copy of Protext, this would also be handy.

Put as many of these as you can muster on a special PrintaPen disc and insert it into the drive. Before you do anything else, set up the serial interface so that the PCW will send text to the pen and not to the printer.

At the A> prompt, type **DEVICE**. Ignore everything that appears on screen except the last line – LST:=LPT. This tells you that the PCW is using the standard printer.

The utility asks if you have a new assignment, which of course you have. Type in **LST:=SIO**, which translated out of computerese means, send any print to the serial interface, and press [RETURN]. The PCW will replay the list again, except this time it will have LST:=SIO as the last line.

If you are going to be printing out ASCII files using PIP.COM you now need to set up the serial interface. This makes sure that the PrintaPen and the computer are in synchronisation. For instance it sets the speed that characters are transferred at (the baud rate), what protocols are used and all that complicated stuff.

Type SETSIO and the machine will print on screen the current settings that it is working from. Unless you have changed them, all the early settings should be right – a baud rate of 9600, eight data bits and one stop bit.

Now you switch on the XON protocol and and handshaking – clever devices that tell the pen when it has printed a line (so it can load the next one) and when the print buffer in the PrintaPen is full. This stops the PCW sending data until there is room to take it – when it has printed out what was in the buffer. As the buffer can only hold 64 characters at a time this does happen quite a lot.

Type **SETSIO x on h on**. You will see the list of settings once more, but this time with XON on and Handshaking on. ➤

What you need

To run PrintaPen you need more than just the actual printer. You need an RS232 interface box with a serial interface – this costs about £50 Into this fits the intermediate connector, an attachment between the serial port and the printer cable, which powers the PrintaPen. This is provided with the package. You also need a five volt mains adaptor to plug into the intermediate connector. These are available from Oyster for £10.

Envelopes

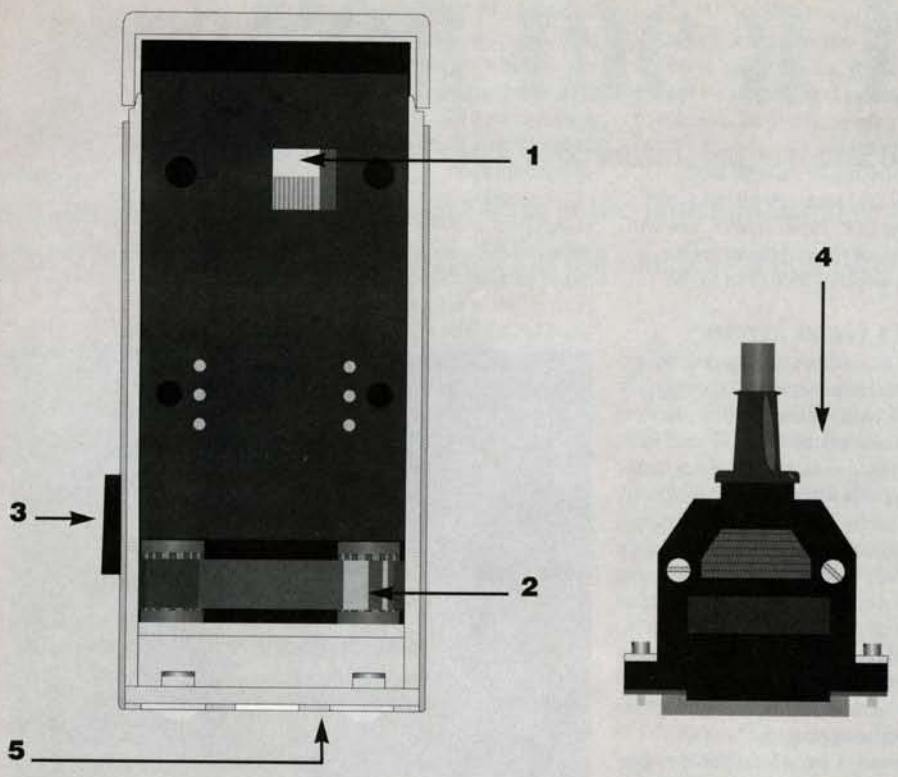
PrintaPen will print directly on to envelopes without too much problem although using padded Jiffy bags can cause smudging because of their uneven texture. As with any printing on to an unlined surface with Printapen it is difficult (at first anyway) to position and space the lines correctly. Rather than ruin too many envelopes, it might be better at first to print on to labels. Working in a more restricted space allows you a much better idea of the positioning. A steady roll gives the best results. This was printed using PIP and the ASCII file.

Disc labels

Printing disc labels with Printapen does work although because of the extremely limited space it does need some care. Again, the labels need to be held down securely.

It is possible to use the condensed face (see BASIC method) to get more information in but this is really quite difficult to read, especially if the text smudges at all on the shiny surface common to most labels. However, it will not work successfully on the spine part of some labels, where a coloured ink is used, as this surface will not hold the PrintaPen toner.

The underside of the PrintaPen



1 Print head
This, like its equivalent on the PCW printer, is where the ink makes contact with the surface.

2 Roller
This acts as a sensor, which, when rolled across the surface you wish to print on to, will tell the Pen where to place text.

3 Print button
You press this before you print, and the ink is released on to the page.

4 25 din connector
This fits between the intermediate connector and the serial port.

5 Ink cartridge holder
Although not visible here, there is a shutter on the outside of the pen into which ink cartridges slot. The only other feature you need to know about is the data light, which at the top of the pen.

If you are not intending using the extra features (a condensed face and underlining) the rest is quite easy. Go into your favourite word processor and produce a file with the text. Don't make the lines too long and certainly don't make them more than 64 characters, as this would mean you would lose the end of the line.

You can put a hard return at the end of each line although this will happen automatically when you make the ASCII file. It is the hard return that tells the PrintaPento stop printing and load the next line.

ASCII me another

Once you have created the file you convert it into an ASCII file. All word processors should allow you to do this. In LocoScript it is done in the File Manager screen. Move the cursor on to the file you saved, press [f7] (LocoScript 1) or [f1] (LocoScript 2), choose the 'Make ASCII file' option and follow the instructions. Remember, it is easiest to have the file in group 0 when you are using CP/M.

In Protext, the simplest thing is to create a block round the text you want to save in EDIT mode – set the square brackets with [SHIFT] and [+] (the one beside the space bar).

[EXIT] into Command Mode and type SB (for 'Save Block') at the prompt. The program will ask for a name for the new block, which is your new ASCII file. Give it an appropriate name - in our case, something like TEXT.DOC will suffice.

PIPing is overboard

Leave the word processor (reset the computer to CP/M if you use LocoScript) and call up PIP. PIP.COM (or Peripheral Interface Program) copies files from one place to another. So in this case it called to use for copying the new ASCII file you have created into the Printapen.

With PIP.COM and the ASCII file on a disc in the correct drive, type in **PIP LST:=TEXT.DOC** (or whatever the file name is). Usually this would copy a file to the printer (and print it out). But as we have already diverted everything from the printer to the Printapen, you should see the red light flashing on the handset.

You then print out the text. It stops after each line (each hard return) and starts on the next line each time you start. Every so often, if you don't work quickly enough, the PCW will bleep at you telling you that SIO is not ready. All you need to do is press [R] for 'Retry' to set everything in motion again.

The Protext method

If, however, you want to do clever things like changing the type face or using underline, you have more problems. It is possible to do it with the file system if you have Protext.

To change to condensed text you have to enter a couple of characters that the printer doesn't print, but recognises as an instruction to change the typeface. These are known as control codes. In this case, the characters are ESC – the 27th in the ASCII code – and SO – the 14th character.

Create the file as before, except at the point where you want to change the text to condensed put in a couple of symbols – * and & are convenient, as they lie side by side on the top row of the keyboard.

Press [EXIT] and [R] for Find and Replace. Type in * (or whatever symbol you have used) after the phrase 'FIND string:'. For 'replace', type in **!27**, the instruction to change the * to the 27th ASCII code character – ESC.

Change the **&** to **!14** in the same way. When you next enter Edit mode you will see the characters have been changed to a couple of quite weird symbols. Save this file (by typing in SB at the prompt), PIP it to the PrintaPen and prepare to be amazed at the changing typeface. You can put these characters anywhere – even in the middle of a line if necessary. To switch off condensed mode, do the same process changing the symbols to **!27** and **!15** respectively.

For underlined text you need three characters - again, choose three from the top row of the keyboard. In command mode, type in 'r' at the prompt, and substitute **!27**, **!45** and !1 for the symbols you have used in the text block. To switch underline off, the sequence is **!27**, **!45** and **!0**.

The BASIC method

If you don't have Protext, but you are quite happy using BASIC why not try the simple BASIC method. With a BASIC disc in the drive, type in **BASIC** at the A> prompt.

Once loaded, you can print anything you want, a line at a time, simply by typing in LPRINT and putting the text in double quote marks. For instance, **LPRINT "This will print anything you want."** The red light will flash and you can print out this line.

To change to condensed, again you have to send the correct control codes. Type in **LPRINTCHR$(27)+CHR$(14)**. When you press [RETURN] the red light will flash although nothing will print out.

Thereafter, everything will be condensed until you enter **LPRINT CHR$(27)+CHR$(15)**. For underlined text, you need to type in **LPRINT CHR$(27)+CHR$(45)+CHR$(1)** and, when you want to stop the effect, reverse it by typing in **LPRINT CHR$(27)+CHR$(45)+CHR$(0)**.

So, once you have mastered the process of preparing text to send to the pen, the only thing that remains is practice. This, combined with a bit of patience, will make the pen a very useful device.

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Minuses
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9512 Colours	F	4.30	4.09	3.87
9512	MS	2.95	2.80	2.66
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Citizen Swift 24	F	3.44	3.27	3.10
Commodore MPS801	F	3.34	3.17	3.01
Commodore MPS1230	F	3.43	3.26	3.09
Epson MX/RX/FX100	F	3.95	3.75	3.56
Epson LX80/86	F	2.47	2.35	2.20
Epson FX/MX/RX80	F	3.44	3.27	3.10
Epson LQ800	F	3.64	3.46	3.28
Epson LQ2500	F	4.73	4.49	4.26
Epson LQ2550	F	5.30	5.04	4.77
H.Packard D/Jet Cart		14.80	14.05	13.32
NEC P2200	F	4.95	4.70	4.46
NEC P6+/P7+	F	5.34	5.07	4.81
Olivetti DM100/200	F	3.43	3.26	3.09
Panasonic KXP1080-83 1090-92, 1124, 1180-90	F	4.00	3.80	3.60
Panasonic KXP1524-40	F	6.90	6.56	5.21
Seikosha SP1200	F	3.44	3.27	3.10
Star LC10	F	3.44	3.08	2.92
Star LC24-10	F	3.50	3.33	3.15
Star ND/NR/NX15	F	5.71	5.42	5.14

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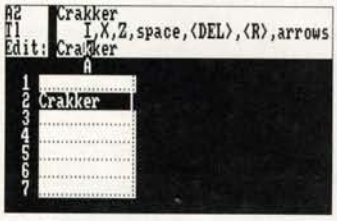
The Upper Hand

How can you make the Cracker II spreadsheet faster, better and easier to use? Karen Donaghay equips you with some inside information

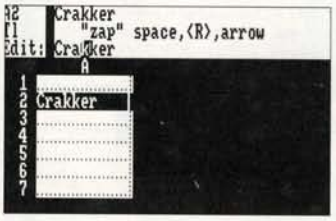
Experience is one of the great teachers, especially where the Cracker II spreadsheet is concerned. A few little tricks and techniques, picked up along the way, can make most programs easier and quicker to use. In general, the more complicated the program, the more noticeable this is, and Cracker is certainly no exception to the rule.

How do you, for example, make the Cracker commands work faster? How do you create an automated Cracker disc? What should you do when you want to save a file, but find that each one of your discs is full? All of these problems have solutions; some of them more obvious than others. This selection of hints and tips can give you the expert touch. Read on to find out how...

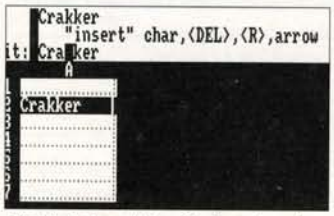
All change!



The [E]dit option gives you the above choice of editing commands



To delete a letter choose the [Z]ap option and press the space bar



Finally, to insert the missing character choose [I]nsert and type in a 'c'

Often you will need to change an entry without actually wishing to re-type the whole thing. There is a special command to do this, the **Edit** command, but it does work in rather a peculiar way.

For example to change the word 'Crakker' in our screenshot, to 'Cracker', you should first press **[E]dit** then move the cursor to the character you wish to delete (the first k). Next, press **[Z]** to delete a character. Pressing the space bar then deletes the extra k, and **[RETURN]** takes you back to the editing options.

Choosing the option **I**, followed by **c [RETURN]**, will put in the extra character. One more **[RETURN]** will then take you back to the main options.

Because this is quite a complicated editing procedure it is sometimes easier to re-write the entire entry rather than edit the original.

Drive-ability

The Cracker manual is unclear on how PCW owners with two drives should use their second drive. It is in fact very easy. To load or save to a B drive is straightforward enough; simply type in the filename with the prefix **B:**.

To see what is on your B drive, type in the sequence **[W]hich [RETURN] [D]isk B [RETURN]**. You will see a list of the contents of the B drive. The 'which' command can also be used to change the user group. For example, to change the group to 1, type in the sequence **[W]hich [RETURN] [U]ser 1 [RETURN]**.

When you subsequently save a file, after changing the user group in this way, it will be automatically be saved into that user group. However, when you use the Which command to change the drive, the program will sometimes continue to try and save to the original drive, unless you precede the filename with the appropriate letter, as described earlier.

Having access to the other drives can save you from one very annoying situation. Imagine you have spent half an hour working on your spreadsheet. You then try and save it onto your A drive, only to be told that the disc is full. Try as you might, you cannot find any files to erase from the disc, or a blank formatted disc. To erase non-Cracker files, or to format a new disc you need to exit from Cracker, thereby losing your current work.

The answer is to save your file to the M drive using the sequence **[C]opy [A]ll [F]ile m:filename**. Then exit the program by pressing the **[STOP]** key and format a new disc. Reload Cracker and load the file from the M drive, using the sequence **[C]opy [F]ile m:filename**. It should then be saved in the normal way onto your newly formated disc.

Automatic Pilot

This is one of those tasks that most people never quite get round to doing. However, creating an automated Cracker disc is an excellent idea: it makes loading the program more convenient, and also Cracker can be made to run far more quickly as a result.

The automated disc, created by the following steps, can move Cracker II on to the M drive and run the program. You may have noticed that whenever you use certain Cracker commands you need to have the program disc in the drive in order to proceed. If the program is on the M drive this is no longer neccesary, so you can actually put a completely blank disc in your A drive and use it solely to save data.

Not only is this more convenient (especially for one drive machines), but it also means that the program runs faster than before (M is the PCW's internal drive and is therefore quicker to access than the A or B drives). Cracker is well known for being a bit of a slow coach, and this will speed things up considerably.

To create this automated disc put your CP/M disc into the drive and type in **PIP [RETURN]**. Then type in **M:=A:PIP.COM** followed by **M:=A:SUBMIT.COM**. Put your Cracker disc into drive A and type in **A:=M:*.***.

Once this is done, boot up from your LocoScript disc and create a new file called **CRACKER.DOC**. Type in the lines:

PIP M:=A:CRACKER.OVR
PIP M:=A:CRACKER.HLP
CRACKER

This needs to be in ASCII format, so save the file and then go to the main menu and choose the option **Create ASCII file**. Call the new file **CRACKER.SUB** and then move it on to the M drive. Put your Cracker disc into the A drive and choose the LocoScript option to **Change Disc**. Then move **CRACKER.SUB** on to the A drive. From this moment on, you can simply insert your Cracker disc at the CP/M prompt and type **SUBMIT CRACKER**. The rest is done for you.

Display model

Whenever you create more columns or rows you need to know what format is required. There are quite a few possibilities, beyond the straightforward text and number options.

General format will display a number in the simplest possible way so that a whole number will be shown as that. Decimal format allows you to define the number of digits you require after the decimal point.

Integer format will round a number up or down to the nearest whole number, and plot fills a cell with stars to the nearest value of the number. Take a look at the screenshot to see just how much difference this makes.

The same number, 5.89067, was entered into four cells. The cell formats were defined respectively as [G]eneral, 3 [D]ecimal, [I]nteger and [P]lot format: Cracker adjusts the numerical display accordingly

Saving grace

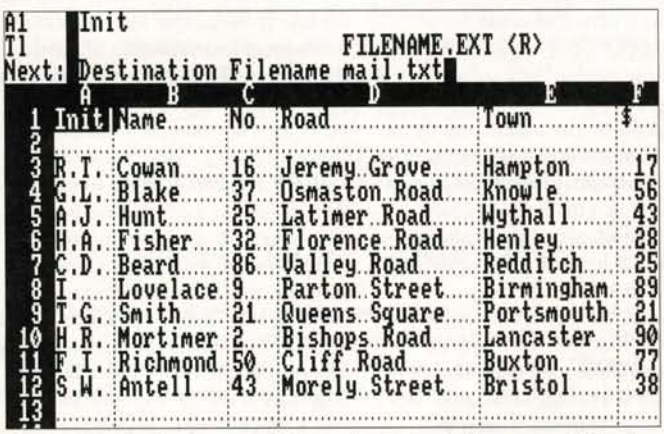
So what is the difference between quitting and stopping? It is a source of some confusion, yet there is an important distinction between the two. Using the **[Q]uit** command to exit from Cracker ensures that a copy of the spreadsheet you are working on is saved to a file, automatically called **security.mem.** This facility should serve as a backup, not as a quick way to save a file, as **security.mem** is overwritten every time you use **[Q]uit**.

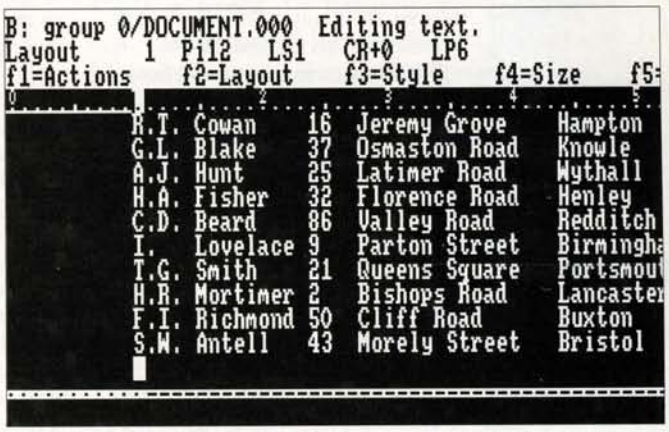
If the Cracker program is not in the relevant drive, or there is no disc space left, then you may be forced to exit the program simply by pressing the **[STOP]** key, leaving you without a backup of your current spreadsheet.

Freeze frame

The ! key is used for a straightforward enough function. It recalculates all of the formula. But supposing you wanted to stop the calculating process half way through? Pressing the keys **[ALT][S]** together will allow you to freeze all operations. The same two keys are pressed once more to continue.

What's in a name?





Saving the entire Cracker spreadsheet on the left, under the name mail.txt, allows the file to be loaded into LocoScript as the text shown on the right. To do this create a new document in LocoScript and choose the option to Insert text from the [f1] Actions menu. Then choose the relevant file and it will be displayed in LocoScript as shown above. This is a process that can work equally well in reverse, to load text written in LocoScript into an empty Cracker spreadsheet

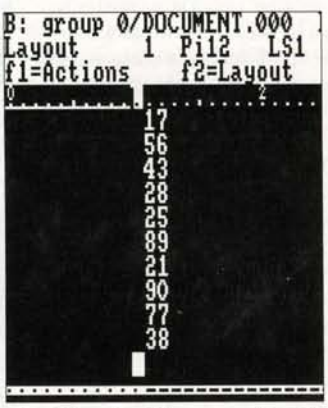
A file is a file or so you might think. But not in the case of Cracker II. There are several different types of file recognised by Cracker and they are distinguished by the three letter extension after the filename.

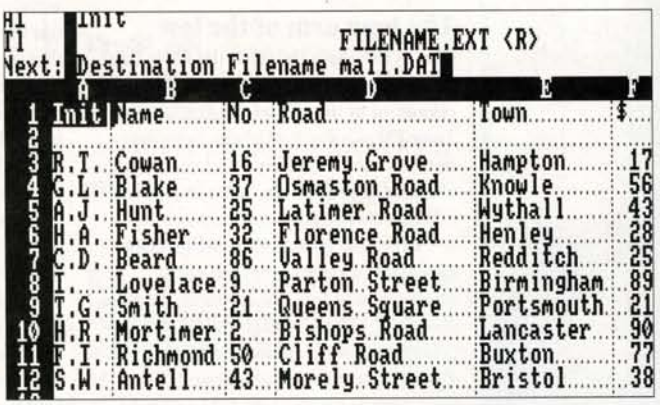
You may have noticed that when you save a spreadsheet using the sequence **[C]opy [A]ll [F]ile sale**, then Cracker saves to a file with the name sale.mem. The extension .MEM is the most common, and signifies an ordinary file of the complete spreadsheet. The previous copy of **sale.mem** automatically becomes **sale.bac**. All of the **.BAC** files on disc are backups made in this way. To load a .bac file, you need to include the extension in the filename.

The other file types within Cracker are **.DAT**, **.DIF** and **.TXT**. Using the extension **.DIF** allows you to save your spreadsheet in a form that can be read in by other spreadsheet programs.

Alternatively, you may want to do some analysis on the figures which cannot be achieved within a spreadsheet program. If you are a hotshot at BASIC programming, then you might want to use a list of Cracker figures within one of your own programs. Saving part of your spreadsheet under the Cracker filetype **.DAT** will save the data as a list of numbers. This is, in fact, very close to the format required by a BASIC program.

Likewise, a list of numbers can be read into the spreadsheet. This could well be the quickest way of filling in a large spreadsheet. A long list of numbers can be copied in using a LocoScript document, transferred into ASCII format and loaded into Cracker as a **.DAT** file





The data on the left was saved from the spreadsheet on the right by saving the block F3 to F12 as a file called MAIL.DAT. The list of numbers produced can be used in a number of ways: for example, to provide the DATA for a BASIC program. Since it is a two way process .DAT files can also be used as a convenient way of entering long lists of figures into Cracker by typing them in using LocoScript, before loading the resulting file into the Cracker spreadsheet

The same principle can be applied to text as well. Text can be loaded from word processor to spreadsheet, or vice versa, by using the file extension **.TXT**.

LocoScript devotees can find out how to translate an ordinary LocoScript document into ASCII format, by reading the box 'Automatic Pilot' opposite.

BOOK LOOK

A PRACTICAL GUIDE TO THE COMPUTER MISUSE ACT 1990 by Tony Elbra

£14.95 ● NCC Blackwell ● 108 Cowley Road, Oxford
ISBN 1 85554 077 0

Value Verdict = Very informative

There is a man at our window. He is about to clean it. Unless he is blind, or has great self-restraint, he will see what is going on inside the 8000 Plus office. He will almost certainly not affect the contents of the office and he is unlikely to take the knowledge he gains and use it for his own ends, whatever those ends may be. He is only 'eavesdropping' in the course of his legitimate work.

But supposing he was not a bona fide window cleaner, and had some other motive, however innocent, for looking in on us; and if (a couple of quantum leaps later) we inside 8000 Plus were a computer and he a hacker, he would be breaking the law.

If, more than just looking in, our window cleaning hacker were to use what he saw to set up a blackmail or fraud operation, or if he were to come back later and change some of the internal structure of the office, or if he were to set a virus in operation; then he would compound his guilt beyond the initial hack, and could face up to five years in jail.

The long arm of the law

This is the main thrust of the Computer Misuse Act 1990, which came into operation at the end of August last year. Tony Elbra's book explains how the new law aims to update and co-ordinate existing legislation in order to make it relevant to computers.

Previous grounds for prosecution had seemed rather weak, to put it mildly. It was felt, for example, that the charge of 'Theft of Electricity', considering the minute amounts involved, would have been laughed out of court – and other existing Laws (for example, that of Criminal Damage) would have had to be severely contorted to be made applicable to the electronic medium.

New powers were needed to combat blackmail and fraud originating in the computer environment, and to cover the unwanted modification of software – both data and programs.

The Law Commission spent some time considering evidence from the industry that such a law was necessary, and considering various proposed cures, before coming to the conclusion that two new offences should be highlighted: 'simple hacking' and 'hacking in pursuance of some other crime'. Within these areas there would be two key words which would define whether an action was illegal or not – 'authority' and 'intent'. Acting beyond your authority within a system (even if you are a part of the corporation that owns the system) and doing so intentionally are the two criteria that could cause your downfall.

Points of contact

All this seems to lean a little heavily on the poor, harmless enthusiast, who burns the midnight oil attempting to plug himself into the Pentagon computer. He considers that the challenge is met as soon as he gains acceptance, and leaves it at that. No harm there.

But what, the Law Commission asked, if the Russians were tapping in on his explorations, and our innocent hacker caused a breach of security. Or to come closer to home, what if the challenge of a simple hack gained access to your bank account, and a further challenge and a few keypresses were to bankrupt you. The expertise is out there to achieve that. We all know that viruses (which clearly come under the 'unwanted modification of data and programs' clauses) are fine when they happen to someone else...

All these points are succinctly covered in Tony Elbra's excellent book (which has been produced with the support of the Department of Trade and Industry), and covered with remarkable clarity considering the spaghetti of legal jargon surrounding the subject matter.

The book deals with the main points of the revised law (usefully quoting relevant sections of the Act itself), and an exploration of some of the issues that the new law raises. The key question is how you should go about taking steps to ensure that you are not the victim of such a crime, and, if you do suffer illegally, how best to provide evidence that will secure a prosecution.

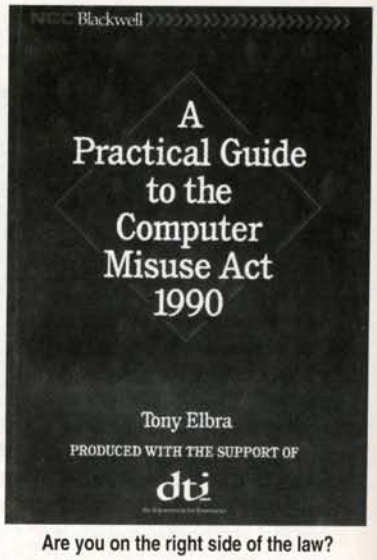
It quickly becomes clear that security is going to have to take a much higher profile for computer users in the future (if it hasn't already – the Data Protection Act requires that people with computers holding information covered by that act should take steps to ensure its security).

Now that companies can prosecute for hacking, they will also have to be able to prove that illegal hacking has taken place, and that the electronic interloper had not got there 'unwittingly'. There is lots of talk of passwords and other 'logical' barriers, of 'tokens' (access keys to switch terminals on and off, and so on) and of corporate policies on security and authorisation issues. Personnel should be informed of any such policy, and be allowed access to data on a 'need to know' basis.

The law only deals with the problem in a very general way, and leaves a lot open to the interpretation of the courts. For instance, it does not define what a computer is. Instead, recognising that technology is advancing faster than the law, it encourages the courts to use the 'current understanding of the term'. So if it is not aimed at any computer in particular, why should the owner of a PCW have any interest in the law at all?

Guilty or not guilty?

Well, if you are a compulsive hacker then you really should be aware of the implications of your actions. But other users are also affected. If you regularly – and legally – link up with another system (say a communications or database network) you have the power at your fingertips, if not the will, to break the law. If you belong to a company that uses PCWs, or if you plug into your company's network from home, then it is worth checking exactly how far your authority extends.



Are you on the right side of the law?

If you actually run a company which uses a PCW or any other computer, in solitude or in network, this book is well worth a read. It is very informative, and in the long run, could save you and your company a great deal of time, heartache and money. ●

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★ PCW 9512 users require suitable printer. Software includes drivers for 9- & 24-pin, Laser, Deskjet & Bubblejet printers.

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To augment a huge range of material available from other suppliers, CT have created specific graphic libraries for **Maps** applications and for those producing **Parish Magazines** or other church publications. Each of these libraries is a two-disc set.

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Three extra discs of typefaces are available, with material from a huge range of different sizes and styles. Disc No 1 **free** with MicroDesign2 only when ordered directly from Creative Technology.

MicroDesign2 PC

NEW For those upgrading their computer, we have now produced MicroDesign2 for the PC. Giving the same publishing power and high quality printing, but taking advantage of the faster disc and screen operation of the PC, MicroDesign2-PC will be instantly familiar to users of the PCW version.

MD2-PC requires only CGA graphics, although it is also compatible with EGA, VGA and Hercules systems.

This whole page is a ONE-TO-ONE reproduction of master artwork entirely designed and printed using MicroDesign2 and ProSCAN on a PCW8512 with Canon BJ10e printer.

ProSCAN

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★ PCW 9512 users require suitable printer. Software includes drivers for 9- & 24-pin, Laser, Deskjet & Bubblejet printers.

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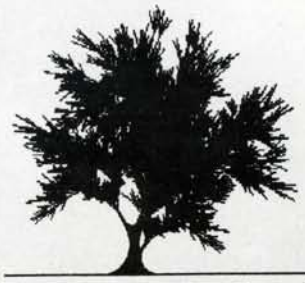

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CREATIVE TECHNOLOGY

A Star is Born

If you in need of wishing upon a star it would be good to know which star it was.Tim Smith uses the PCW to look up to his betters with Startrack+

Startrack +
£22.95
Discovery Software
081 455 9962

Astronomy is a huge subject, awesome in scope, and wonderful in the sheer beauty offers to anyone who has a window to look out of. With a PCW and the upgraded version of Startrack from the aptly named Discovery Software, the sky is -quite literally - the limit.

Back in May 1989 we reviewed the original Startrack program and made one comment in the negative. We said that it lacked planets and the moon. Discovery Software has taken heed, and now the PCW-ing astronomer can switch on his or her machine and view everything from the earth's own moon to Mercury – and all points in between.

Aside from the addition of these astral bodies, not much has changed in the program. If you have the original version, and you wish to upgrade, all you have to do is return your master disc together with £8.95 to Discovery.

For those readers who have not sampled the pleasure which this program can bestow to the inquisitive, the full retail price is far from being unreasonable in itself. So, what exactly does it do?

Quite simply, Startrack+ gives you the entire sky, and 2,000 years, well 1,999 – from 1000AD to 2999AD - to play with.

Lift Off

The start up procedure for Startrack Plus is a simple affair, facilitated yet further by the excellent manual. All you need to do is to copy the master disc using DISCKIT.COM and also copy a few files from your CP/M disc using PIP.COM. Once this is done – and it should take you all of 15 minutes – you are ready for the off. All three machines in the PCW range are catered for in the excellent manual.

The manual does not stop there. Once you've put the master disc away you are lead through a preparatory lesson. This is designed to acquaint you with the basic principles of the system, and should put even the most faint hearted star gazers, let alone CP/M and BASIC users, at their ease.

Once you have made your way through this opening you have two options; you can sit and play with the program, which is a pleasurable enough experience but not one which is going to get the most from it.

The second option is to read the manual and find out what else is on offer. The latter alternative is recommended, not least because you do need to get to grips with a few topographical arguments if you are to get the most from your buy.

Startrack+, like its predecessor, treats the sky not simply as a space you look up into. It is around you. To understand the program fully you have to understand that you are a static point. You do not turn to see the stars, constellations, moons and planets; they come to you, as does time. Discovery Software makes an anology to peeling an orange which we will let you read for yourself as it is an superb piece of explanatory text. Suffice to say for this review that the sky is split into three sections – North, Central and South.

North and South can be shown as circles with the various stars, planets and constellations moving in circular motions. The Central region, however, is rather quirkier. It is a flat strip – even though the horizon is still shown as a circle on screen, which is wrapped around you. The only difference you will notice is the Ecliptic which appears as a waving line (or a sine wave to be precise).

Starry eyed

So, here you are floating within one of the three regions available from the main menu. You are also free-floating in time. What to do next? Well the most obvious course of action is to get some stars on screen. For this you need the 'Locate Constellation' section of the Sky Menu, which lists all the available stars.

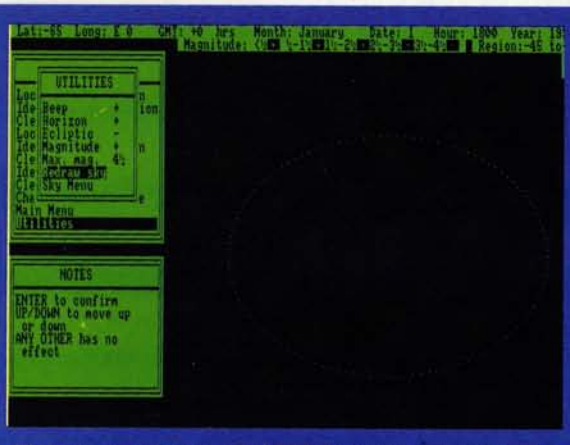
Once you have chosen the planet, star or constellation you wish to see from the menu, pressing [ENTER] brings it on screen. One quibble here is that the 'help' and menu boxes seem to dominate the screen and dwarf the star maps. This is more than likely due to the fact that at any one time a host of graphical information can appear, and to control this from BASIC requires an area of screen that is easy to handle.

You must be careful not to call too much on to the screen at a time. Unless you have the magnitude (brightness to laypeople such as us) attuned you may well just see a mass of dots and not very much information.

The best way to get grips with the program is to examine one constella-

BASICally speaking

The bulk of Startrack+ is written using the PCW's bundled BASIC language. This makes loading different sections of the program a rather slow process. Unlike many programs which use BASIC however, the programmers have thought to include messages telling you how long you have to wait for each new section. It might have been better to convert the program to machine code, if only to provide the final professional sheen to the product. The more people who use it, the more likely this will be - and it does go to show just how much you can achieve from the PCW's free packaged software.



All you need to set up your first PCW driven view of the stars . The Utility menu allows you to set up a default viewing environment

Those blips on the screen are in fact constellations and planets. Once you have chosen one you can even make it flash at you!

tion, from which you can pinpoint individual stars, and maybe a couple of planets. You can then alter your postion in order to view them again.

Time, it's relative

This altering of viewpoint couldn't really be any easier. At the top of the screen are two bars of information. These can be scrolled through using the 'Change Location/Time' option from the Sky Menu.

At the back of the manual there is a very useful glossary explaining which longtitudes and latitudes different places on the earth relate to. This means that you can view the heavens quite happily from near the point – and exactly at the time – of your own birth. Time options given are also detailed.

Not only can you change the hour, day, month and year, there is also an option (GMT) to show you how many hours ahead or behind the Greenwich Meantime you are, from your particular vantage point.

Also included in these information bars is magnitude display, which shows you the brightness levels of different stars. The moon always remains constant. What this actually means is that you can be armed, not only with your eyes, but also with a powerful telescope, as some stars will only just be visible in real terms to the naked eye.

Another element to this informative top screen is a direction arrow. This shows you which way is north, unless you are standing on or above a polar icecap. Because you are looking up, by the way, East and West are reversed.

What you see is what you get

As we have noted, the screen display is rather small so it is best not to have too much on screen at any one time. For people wishing to use the program for serious study, this will probably not cause much of a problem.

It is quite possible to track a single star from 1000AD to the present day and beyond, from several different locations, and still get a great deal from the program. Having too much on screen, unless you really know your way around, is really a waste of time.

However, once you have got the required elements on screen the fun, and learning does not stop. Highlighting stars involves a simple keypress which sees them flashing on and off. With a spritely screen re-draw, moving from one place to another and seeing how the positions of your chosen star alters can be achieved quickly. In fact, once the basic map is layed out everything else falls into place quite easily.

One gripe which does need bringing to the fore, especially if you did wish to produce a 'history of Canis Major as seen from Kabul between 1866 and 1972' for example, is that there is no built-in facility to print out your star maps. This is certainly possible by pressing the [EXTRA] and [PTR] keys to give you a screen dump – and this will put all the timing, magnitude and position information on paper too – but it does seem like rather a flaw in an otherwise excellent program.

Aside from this, there is very little negative comment to be made about Startrack+. It does pick up from where its predecessor left off. The inclusion of planets and the moon adds an extra feature to the program's very strong armory of tools for the amateur and experienced astronomer alike.

The manual writing is quite definitely a lesson for software publishers everywhere. The constant supply of 'on screen' information to help the user move from one option to another never becomes intrusive. And the range of data held by the program is impressively comprehensive.

The amount of work which has gone into producing the program makes it clear that Startrack+ is a solid addition to any software collection. In short, it is not just a program for those already into astronomy. It is polished enough to be enjoyed by us all. Who knows? You might even learn something in the process. ●

Details, details!

Astronomy, like any truly worthwhile pastime, has a few rules to be understood. The only way for non-astronomers to really get to grips with these is by taking a structured approach. This is one of the reasons that Star Track is split into three distinct sections which are as follows.

First, there is the main menu. This greets you once the program has been loaded from the PROFILE.SUB file, included on side one of the disc. From this menu you get to choose which of the three areas, North, Central or South, you wish to concentrate on. Once you have made your choice, from a LocoScriptian looking menu, you are asked to wait a few seconds and are then taken on to the second element, the Sky menu.

This is where the majority of the work is carried out. From this menu you can show constellations, planets and even individual stars. Once your chosen heavenly body is up on screen, you can start to have fun by altering your position in space and time. This is a simple operation using clearly defined key presses – such as the arrow and [ENTER] keys. There is even an element of on-screen help in the form of a small box to the bottom left of the screen. To get even more from the program, you can also access the third element, the Utilities menu.

This section of the program allows you to keep your PCW quiet by supressing its beep. It also allows you to control the 'magnitude' of the stars as they appear on screen. In true star gazing, as you would see them with the naked eye or telescope, some stars are brighter than others (they are greater in magnitude). This can be a bit if a strain on the eyes however, so the magnitude section of this menu allows you the opportunity to turn all of them up to full brightness or, once you've become more at home with locations, back to 'real' magnitude.

Other options open to you here are whether you wish to have a horizon and Ecliptic (the paths which the bodies take) on or off. Full warning messages are given if you accidentally hit the wrong key.

Not happy with just seeing stars? Well one of the new additions to StarTrack is the ability to locate and identify planets as well

Not happy with your present location in time and space? Chaning that is a piece of cake from a clearly labelled menu option

Did you know...

The Startrack manual is, as we have already said, extremely well written. It has some extra sections as well, the relevance of which are, admittedly, not immediately obvious. The first deals with 'How to calculate a sheep's gestation period', and the second allows you to 'Navigate with the Polynesians.' A third section looks at whether or not there are 13 signs of the zodiac. Ideal information to digest on those rainy days...

Startrack +

Pluses

- ▲ Excellent manual
- ▲ Easy to use
- ▲ Gives you space and time to play with
- ▲ Addtional features work a treat

Minuses

- ▼ Screen display a little small
- ▼ No print option

Range of features:	4/5
Ease of use	5/5
Performance:	4/5
Documentation:	5/5
8000 Plus value verdict:	18/20

Knowledge is Power

Locked deep within the innards of your new PCW is a host of untapped powers and resources. All you have to do is to learn how to unleash them. A tall order? Mike Gerrard doesn't think so

A writer friend phoned me up the other week. Apologies and all that, but slight problems with the Amstrad. He'd eventually succumbed to frivolity and bought his son a computer game. The trouble was, he couldn't figure out how to load it. The packaging had no instructions, the shop where he'd bought it was now closed, so could I possibly help?

"I'll have a go. Are you at the computer now? Right, the first thing is to load up CP/M."

"Er... what's CP/M?"

He'd had the Amstrad at least three years — in fact I'd encouraged him to buy it in the first place, and he freely admitted that it had transformed his writing life — and in all that time he'd never looked at the other side of his LocoScript disc. Having persuaded him to turn it over, and stick it in the disc drive, we proceeded to do really complicated things like type **DIR** to learn what files were on his games disc.

He didn't seem to find this too intellectually demanding, so having established that the game he'd bought was written in BASIC by looking at the file names, we soon got it up and running with a little bit of disc swapping.

Curiosity filled the gap

At the end of the call he was delighted and seemingly stunned by my incredible knowledge of computers. Just fancy, being able to do all that over the phone, without even seeing the computer screen in front of you. But let's face it, in the kingdom of the blind, the one-eyed man is king; I'm definitely only one-eyed, if not cock-eyed as regards the technical side of computers. But I have picked up some information on the way, mainly out of curiosity (though what I do know doesn't keep too many of my brain cells occupied, I freely admit).

I understand people's fear of computers, as I share it myself over some aspects. What I don't understand is that having discovered how to use LocoScript, for example, and realised that it isn't too painful and it enables you to get through about twice as much work as you used to do on the typewriter, there's no desire to go on and find out what other useful programs are lurking out there. It's like dipping your toe in the water, finding it pleasant, but spending the rest of your life standing there at the edge refusing to get your ankles wet.

That same writer friend is heavily involved in a local dramatic society. He could easily produce their programmes using something like Micro Design 2 – opting for laser output for really impressive results – and probably save on the printer's bill. You don't even need to get into DTP if you don't want to, or can't afford it, as with a little ingenuity you can work wonders with LocoScript. I'm on the committee of a writers' group, and once a year we organise an evening when local writers can read from their work. Last year I suggested we ought to do a small programme, to hand to visitors when they arrived, telling them a little bit about the people reading, and our own group.

Mike Gerrard: "In the kingdom of the blind, the one-eyed man is king; I'm definitely one-eyed, if not cock-eyed, as regards the technical side of computers"

Here's one I made earlier...

I used LocoScript and by altering the page size, playing with the margins, running the paper through the printer twice (the second time 'upside down'), produced in an hour or so about 50 A4 sheets which could be folded in four to produce a neat little programme, smartly printed on my 24-pin printer. The cost? Next to nothing. If I'd had a little more time, and was closer to my nearest instant print shop, I'd have let them do the copying and produced an even better result, perhaps on coloured card or heavier paper.

This is all done with LocoScript, and yet how many people bother to experiment with it, once they've got their templates set up for letters, articles or whatever it is that they write every day?

Ignorance costs you money, too. I remember chatting to another friend, shortly after he'd bought his Amstrad, and he mentioned that he'd just bought his first blank disc, other than the ones he'd used to back up his master discs. "They're a bit pricey, though," he moaned. The reason they were expensive is that he'd wandered down to his nearest branch of a certain retail chain and bought just one disc at the extravagant price of about a fiver.

This was a few years ago, but it's not outdated as only a couple of months ago I was browsing round a computer shop not a million miles from Peterborough, and saw on their shelves a box of ten 3" discs. "Double-density discs", the sign said, "for your Amstrad's B drive. Only £39.95 for ten".

Only? I thought this nonsense about needing special double density discs for drive B had been nailed long ago. Apparently not. But do you really want to spend £40 for ten discs when they can be had for half that price in umpteen places? Yet no doubt by now they've been bought, by some unsuspecting soul whose family motto must be "What you don't know can't hurt you."

In the know?

I recall another very recent incident, this time in a computer shop in Cambridge. I don't spend all my time in computer shops, but you've got to go somewhere while your girlfriend's trying to break the record for the number of hours spent in shoe shops on a Saturday afternoon. But in this shop – computers, not shoes – the assistant was merrily telling the woman that she couldn't possibly run a database for her club members on the Amstrad PCW, as there were absolutely no business programs available for that machine. She would simply have to buy a PC.

Before I could decide whether to leap in and say something like, "Excuse me, madam, but this young man is talking cobblers," I was relieved to hear her stick to her guns. A friend had told her that what she needed was a PCW, and a PCW was what she was going to buy. But not from that shop, as she very quickly left.

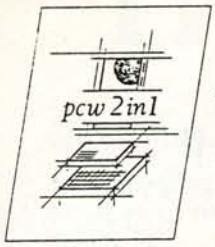
I recall another 'phone call from a friend, asking how to do something on his Amstrad. When I wanted to know if he had LocoScript 1 or LocoScript 2, he asked me what LocoScript 2 was. Nope, he hadn't sent his registration card back to Locomotive. Nope, he didn't read computer magazines. Nope, none of his friends had told him about LocoScript 2. What did it do? I told him. I gave him Locomotive's phone number. He ordered it the same day and reported back that he loved the extra speed of it. Yet how many other programs might he be making use of, if only he knew of their existence? Databases, spreadsheets, desktop publishing programs, spelling checkers?

I've recently fulfilled a lifelong secret ambition, which is to publish a literary magazine (subscription forms available, hurry, hurry, hurry). I could never have done this if I hadn't been aware of a few helpful pieces of information .

First, DTP programs enable you to produce the magazine's pages, second, that bureaux will laser print or typeset them for you, and finally, that databases will deal with the subscriptions.

Without such knowledge, you wouldn't dream of trying to produce your own magazine. But with it, the dream becomes a reality. ●

Two Programs EVERY PCW should have!



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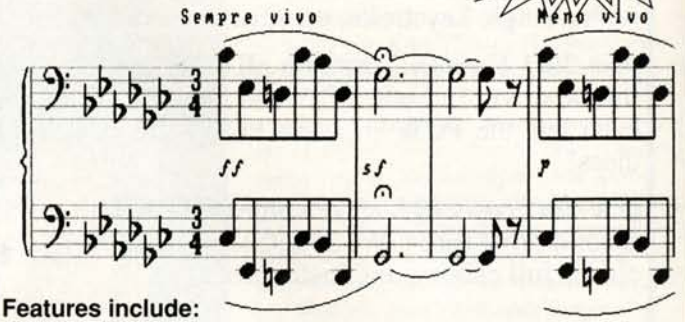

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Tickets, please!

This month, Alec Rae takes a look at how Micro Design can add an individual look to club or society membership forms and raffle tickets

So far, in our of tutorials on how the PCW (and Micro Design 2, in particular) can help you brighten up your image, we have concentrated on the needs of small businesses.

But many PCW users have bought their machines for far more serious reasons than making a living. There are other full time occupations that can be greatly aided by the help of a computer.

One of the most demanding applications is, of course, the person who has been elected to run a club or society. Letters, agendas, minutes and a thousand other pieces of indispensable literature have to be produced regularly, with no help and for even less thanks.

Some users, buoyed up by the sense of power that ownership of a PCW gives, have been known to volunteer to take on the most onerous position, just to have the opportunity try out their new mailmerge program.

But the PCW (and Micro Design 2) can help with many of the day to day tasks that prematurely age the average club secretary. Tickets, posters, membership forms and a whole host of other documents can be produced easily, cheaply and (with a little imagination) professionally enough to ensure that you get elected again at the next AGM.

Try your second best

One major advantage of creating a logo for a club or society (compared with a logo for a small company for instance) is that you can get away with a lot.

Most club members would be impressed to see any kind of graphics at the top of the page. And yet PCW owners can still gain a considerable amount of pride and satisfaction from producing professional looking literature, with only a small amount of effort.

There is a large amount of clip art available, both from Micro Design 2 and from other clip art discs which are especially designed for clubs. These are often pretty limited – figures playing rugby or flower arranging. And the club orientated clip art on the Micro Design disc itself is even a little obscure.

Church organisations are well provided for with images of a Celtic cross and a church window that could head up any newsletter and 'Young Farmers are OK' with a picture of a tractor ploughing (how many Young Farmers own PCWs we wonder?)

You are also all right if you are involved in an archery, volleyball or swimming team. There are cuts of little stick figures provided doing something remarkably like each of these activities. A PCW printer with an Amstrad logo should cover many PCW clubs and Dungeons and Dragons enthusiasts could be quite content with the picture of the castle.

You could also manage well if you were interested in bird watching with well-drawn geese and a duck on file.

But probably the best drawing on the disc is a squirrel. Very nice. But how many squirrel watching clubs are there in the UK? And the cut of a fingerprint is also very interesting, although the mind boggles to think when you will use it.

Of course these are all pretty general images. And you do stand some danger of having exactly the same logo as any other club where the secretary owns a PCW and Micro Design.

Changing face

If you are not artistic (or enthusiastic) enough to create your own logo, you can still improve things greatly by modifying the clip art to suit your purposes. Perhaps adding the club name, in a pleasant typeface, as an integral part of the logo.

The church window, for instance, can easily be personalised to include a church name. Remember that in Micro Design text comes out the opposite of the background colour – white on a black background, for instance. You can work effectively on a contrasting black and white background. It is only when you try to write on a 'grey' background that the text gets difficult to read.

In the church window picture, for instance, you can use the paint facility (with a reasonably small brush) to 'black' out most of the white blobs in the window supports, giving a more solid background to write on.

This, incidentally, is about the only time (apart from Christmas Fayre Posters) when you can get away with using Old English type face.

The list of clip art on the Micro Design disc, it has to be said, leaves quite a number of clubs and activities still to be catered for. If you find nothing suitable, you might be able to modify clip art for another activity with the minimum of effort.

For instance, it takes only a minimum amount of artistic ability and a bit of patience to remove the ball from the volley ball logo and add a racket to give your badminton or tennis club an individual identity. Probably the easiest way to do this is to go into the Zoom facility, where you work in a small part of the screen blown up out of proportion. Here, it is easy to make minute changes without difficulty.

Cubism Rules OK.

Or, with a little bit of imagination, you can use simple shapes to create a completely new drawing (as is shown in this month's example).

Most images can be reduced to basic shapes, whether it is a rugby ball or a school badge for a parent/teachers' association. Unless you are quite skilled at freehand drawing, you should not attempt too much with the mouse. Instead, try to break the image down into more workable 'chunks' – straight lines, circles, ellipses and rectangles.

With the Micro Design 'Shape' command you can size and position these elements very carefully and fill them with a wide variety of patterns.

Just as with the logo for the small company, once you have your club badge or insignia on disc you can use it for a thousand purposes. Membership forms and cards can look infinitely more professional when they are laid out properly in Micro Design.

Even jobs that you would normally consider would have to be taken to a professional printer (raffle tickets or dinner dance tickets for example) could be handled effectively.

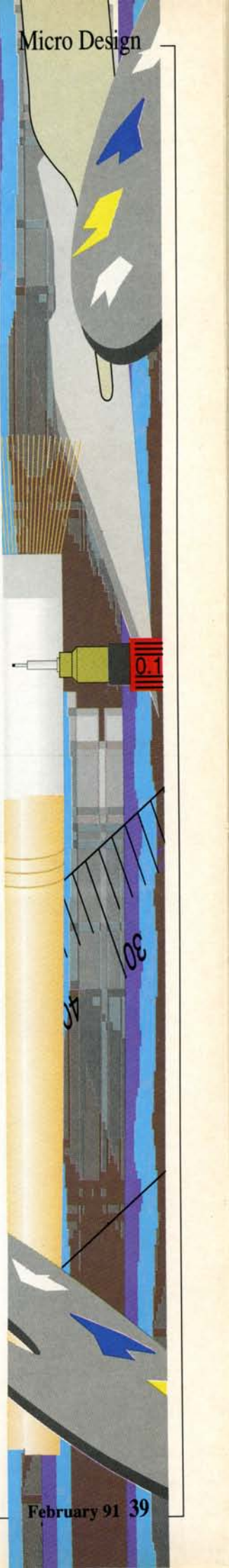
Naturally, if you were producing 1000 raffle tickets you would think twice about churning them out on the old PCW printer. But by using the 'Store' facility in Micro Design, you can easily reproduce the design six or eight times on an A4 sheet.

Once this has been printed out, what you need to do is to gain access to a photocopier that can handle cardboard (most of these copying agency services have such machines). In minutes you can run off 150 sheets.

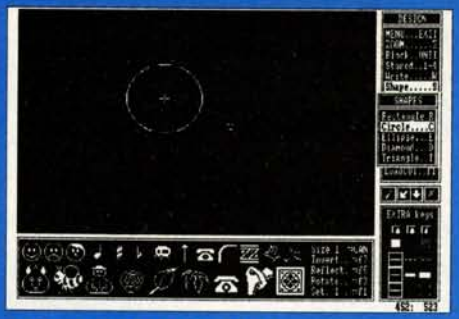
If you need to have them individually numbered you could set up a template within your word processor to print numbers of the back of each sheet. Although not the quickest job in the world, you could print off individual numbers on each page without too many problems.

Then simple use a guillotine to cut them up into the correct number of individual tickets.

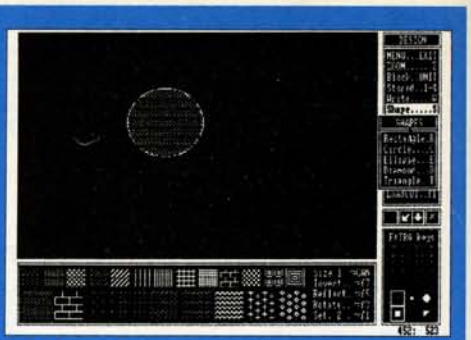
So, it is possible, with a small amount of work, to add a touch of spice to most club stationery. And even if perfect results take time to arrive, it is also great fun experimenting! ➤



1 Creating the foundations



2 Creating the circle



3 Choosing a pattern

1 So here you are, the secretary of the Extremely Poor Bowling Club faced with producing the tickets and posters for the annual dinner dance. How do you save money and at the same time produce something that looks professional enough to keep the committee from moaning?

First, if there is no suitable clip art available, we start by creating a simple logo from scratch, made up almost entirely from the shapes and patterns that can be produced in Micro Design 2. As it is a bowling club the immediate image that comes to mind is two or three woods in a head.

The same techniques could be used for virtually every activity. Tennis rackets, rugby balls or goal posts can all easily be reproduced to make an interesting design. If that doesn't appeal why not try the same method with a badge or coat of arms or even a local landmark. Remember you don't have to put in every detail.

2 You start with the smallest circle (the one furthest away in the picture). Go into the Design screen ([EXIT] and [D]) and click on the Shape command in the list to the right of the screen.

A sub-menu will appear showing you the choices. Pick Circle (press [C]) and a crosshair cursor appears on the screen. This marks the centre of the circle. Click on the spot on screen you reckon you want the centre to be. There is no need to be too accurate as you can move it later.

With the circle command, like many of the commands in Micro Design, you can switch from the centre of the shape to the circumference by clicking on the right hand mouse button.

Click on the right spot or drag the crosshair cursor to give you the correct size of circle. Remember to make it reasonably large. The image is a lot bigger on screen than it will be when it is printed out on paper.

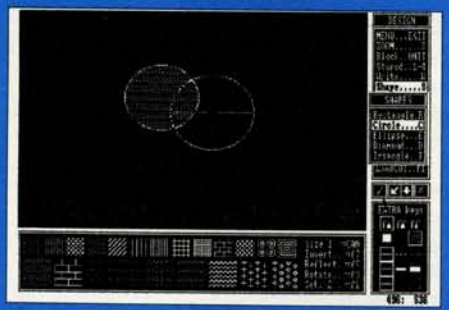
3 You want to fill this, either with a pattern or with solid black. Using a pattern here is simple.

There are three boxes on the second row of the EXTRA keys box (bottom right). Pick the far right one – the one with a pattern on it.

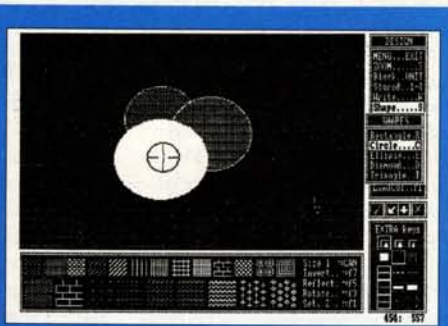
To pick the pattern you want, you call up the choice available. Press [EXTRA] and [f1] to change the set of Icons at the bottom of the screen to patterns. This shows 22 different textures and as these can be used at half and double size. This gives a possible 66 different options.

However, some of these are so dark that they will come out as black if you print them at half size. The one chosen here is the box on the far left on the second row of patterns.

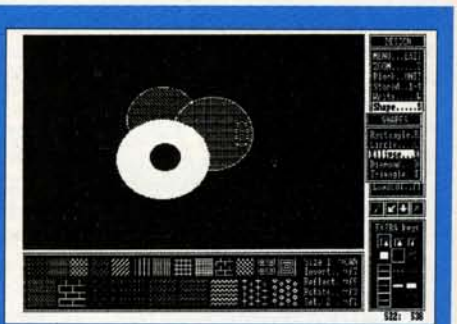
When you are happy with your circle, click on the tick (just above the EXTRA keys box) and the circle will fill with pattern.



4 Adding extra circles



5 Adding finer detail



6 Using ellipses

4 Now you want to add a slightly larger circle and put it in front of the one you already have. Click on Shape and Circle again. An identical circle to the one you have produced will appear and by clicking on another part of the screen you can move the centre of this circle to the spot where you want to place it.

Click on the right hand mouse button and then drag the circumference out a little to increase the size (notice that it is further forward in the picture and will therefore appear bigger).

This time the pattern you want to import is the box over on the far left of the top row.

Make sure you click on the left hand box in the top row of the EXTRA keys box. This makes sure that the the new circle overwrites (covers up) any of the old circle it overlaps with, making it the most dominant of the collection.

5 You repeat this whole process to place the final circle at the very front – this time, however, you want to fill the last one with solid black. Once you have formed and placed your slightly enlarged circle, click on the black box (next to the pattern box in the second row of the EXTRA keys box).

This will fill the final circle with solid black. You have three overlapping circles of increasingly darkening shade. Now to add those little discs that the woods have one the side.

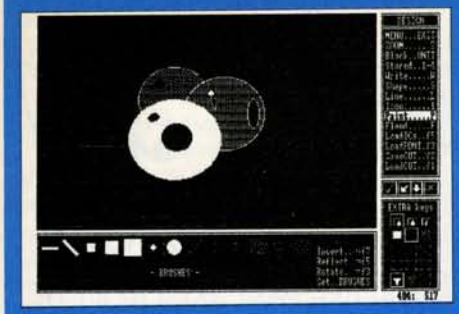
If the wood were to lie sideways on to the viewer this would appear as a perfect circle. So we can make at least one these discs perfectly round.

Click on the white box in the second row of the EXTRA keys box and, as before form a circle inside the largest circle. This time it will come out as white against the black background.

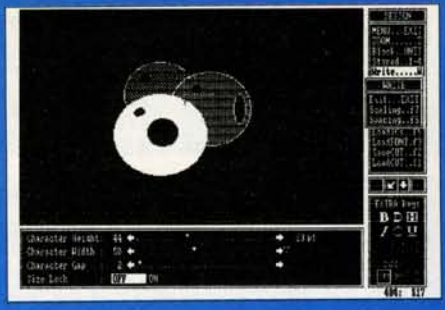
6 However, in the real world, woods would not always end up sideways on to the viewer. It is quite likely the other front bowl would be at an angle and therefore the disc would appear as an ellipse.

So this time call up the Ellipse command in the Shape menu. This works exactly like the Circle command except that there are two crosshair cursors on the circumference. By clicking the right hand mouse button you can switch to each in turn. Then by dragging the cursors in and out you can distort the circle into an ellipse.

In this case the top cursor should be stretched upwards while the side cursor can be brought in close to the centre. By clicking again you get back to the central crosshair cursor which allows you to reposition the shape. Push it well to the right side of the circle. Click on the tick when your ready and a white ellipse will appear.



7 Special lighting effects



8 Adding text

9 Making the text fit

7 The only thing needed to make these perfectly naturalistic is some reflected light. Bowls are shiny objects and they always have patches of light reflected off them.

This is best achieved with the Paint facility. First save what you have done so far (using the SaveCUT option [f2]). Then if you totally mess up you can call up the original and start again.

Press [P] for paint and then click on the small brush icon. This allows you to pick the size of brush you want. Here you want as small a brush as possible. Click on the smallest circle in the brush menu.

Make sure the white box in the EXTRA keys area is chosen, so that you paint with white paint on the dark surface.

Then paint small areas of reflected light on the top of each bowl by holding down the left hand button and carefully moving the cursor back and forward. If things go wrong use the Zoom for repairs.

8 This is the time to add the words. Pick out a suitable type face using LoadFONT. The one chosen here is Rondo, from Creative Technology's Extra Fonts disc 2. It is a good compromise – very readable while still a bit more imaginative than Times or Helvetica.

By using the solid black circle right at the front of the design, it means we can type right over the logo. When we type on a black surface the letters come out white and vice versa.

Try not to write over any areas that have pattern on them as they can come out very patchy and confused.

You will probably want to increase the size of the typeface to balance the weight of the logo.

Press [W] for write and [f7] for rescaling. By clicking on the arrows at the side of the scaling rules (they appear below the screen) you can increase or decrease the height or the width of the letters.

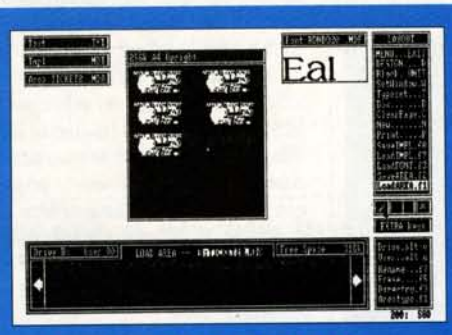
9 Write in the club name. Position the first letter by clicking on the part of the screen you want to start typing in to. You will see an 'L' shaped cursor appear on the spot. In this case it is on the large black circle.

Remember, if the line of text is too short or too long, you can erase it (by clicking on the cross or Delete backwards), re-size the type face and start again. Don't press return at the end of a line. It is better to re-position the cursor with the mouse.

The final touch added to this logo is the date when the club was founded, placed carefully in the white disc on the front bowl.

Save this whole image using the SaveCUT option [f2] and expand the box to fit). This is your logo, which can be used on all your literature. Now you can go on to add the other text for your dinner dance ticket.

10 Different typefaces



11 Duplicating the tickets

12 Other material

10 You can type everything in the same type face or pick out important areas of text in another face or in bold. Bold is achieved by clicking on the letter B in the EXTRA keys box when you choose the Write command.

If there is not enough room on the screen you can click on the diagonal arrow (above the EXTRA keys box) which makes the Scaling box disappear, giving you more room to move.

By clicking on the horizontal arrow next to it you can call up the cursor arrows which allow you to move the area of screen you are working on (click on the arrow to move in the desired direction).

Don't try too many different faces or it will look over-cluttered. And remember not to take up more than half the width of a full A4 page.

You can check up on the space which you have available in the Layout screen ([EXIT] and [L])

11 Once your ticket is complete, save it using SaveAREA in the Layout screen [f2]. Clear the page – [C] for Clearpage and click the the tick. Press [f1] for LoadAREA and, making sure that the same size option is chosen (the x1 box on the right hand size of the bottom box), push the area box right into the top left hand corner of the page.

Chose the Block option [UNIT] and put the box over the ticket. Click on the Store 1-4 option in the submenu and click the tick. Choose the Stored 1-4 command from the menu and when the box appears move it alongside the existing ticket and click the ticket. An exact copy of the ticket will appear.

Do this another four or six times – however many it takes to fill the page with two rows of evenly spaces tickets. Then you can print it out to get an A4 page filled with tickets, which can be photocopied as many times as you want.

12 But you still have the publicity posters left to do. So clear the screen again ([C] and tick) and choose the LoadAREA option yet again. Choose the file you saved but this time select the x2 double size box in the bottom screen.

Assuming your ticket is not any wider than half the width of your page it should fit neatly across the whole area.

Then you can print this out and use it for an effective poster or flier.

As mentioned before the logo can be used for all kinds of club literature, from tickets to mebership forms. Effective use of the Line function using a dotted line (which you can access from the right hand box in the middle row of the EXTRA keys box), will allow you to produce all those forms with the dotted lines that club members have to sign on or fill their names out on. This is far more attractive that having a type-written or word processed document.

Quick on the draw

The thought of producing graphics on the PCW may be a daunting one to the novice. Budding artist Martin Le Poidevin takes the plunge with SketchPad II

Mouse trap

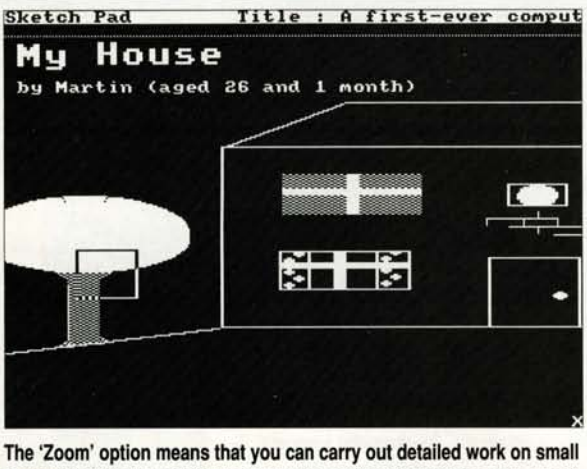
One of the main advances of SketchPad II over the original version is that it supports the AMX mouse. This means that you can draw your images freehand. You will need an interface to activate the rodent, and a flick through the advertisements in the pages of 8000 Plus will reveal several 'package' offers for the two together.

When 8000 Plus reviewed the original version of SketchPad, way back in the heady days of Autumn 1987, it suffered a little by comparison with Master Paint, a similar package from Database Software. Anything SketchPad could do, Master Paint could better, and a lot more besides. What is more, it was a WIMP environment (which means that it makes use of windows, icons, menus and pointers – but more of that later).

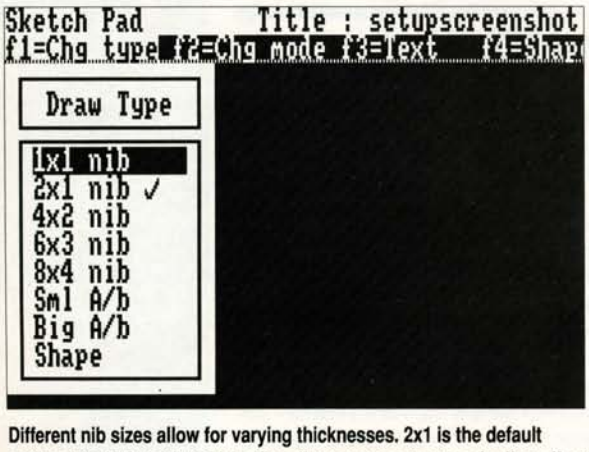
This time, the new improved version of the program, SketchPad II, looks like suffering in comparison with Micro Design, a fully fledged page processor – words and pictures fully integrated.

But what happens if you are wary of WIMPs and don't need a page processor – but would still rather like to fiddle around with a simple graphics program for a bit of fun? And suppose you do not want to fiddle around with unknown quantities such as mice and clip art?

This is the point at which SketchPad II might start to appeal. It is simple. There is no getting away from that. It is a Mini Clubman compared to the Desk Top Publishers' Porsches. But then all you need in the first place is a steering wheel and an engine.



The 'Zoom' option means that you can carry out detailed work on small areas of a picture, and watch the effects on the whole area as you work



Different nib sizes allow for varying thicknesses. 2x1 is the default setting. The 'A/b' (airbrush) facility allows you to create a shading effect

First things first

The manual is readable, and as long as you know what a pixel is (it is the smallest point of light you can make on the PCW screen, and is the basis of any display – your average full stop comprises four pixels together) there is no unexplained jargon.

OK, you have to venture on to that bit of your three inch disc that isn't LocoScript (it's CP/M), but once there, your SketchPad disc contains a command that will automatically make a start-of-day disc with no further ado, and you never need to worry about CP/M again.

The program will run on all PCWs, although as the manual explains the 8256 owner will not be able to do everything that a 8512 owner can, and of course the 9512 daisywheel printer will not produce any of the graphics. And if you have the Flipper utility, you can happily run SketchPad in one of the environments, with, say, a word processor in the other.

Once the start up disc has been dealt with, you can get straight down to the business of delving into the program. The initial screen presents you with a picture of a PCW with another PCW on its screen, with another PCW on its screen. This is probably the computing equivalent of having music played at you down the 'phone, but slightly less grating.

Deja vu

Next, you are presented with a screen that looks and functions rather like the LocoScript Disc Manager. The lower half of the screen presents information on the pictures stored on your present disc (probably none at this stage, but try putting in the other side of your start-up disc and pressing f1). The top half presents various command options, which use either individual keys (is "C=Create" familiar ?) or the function keys. This similarity to a well known word processor is entirely intentional.

The manual actively encourages experimentation, and your next step is going to be to try out the drawing screen, probably using one of the pictures that Composit provide on the (back of the) start-up disc. You should quickly find that, with a bit of concentration, things are easy and logical. Commands are usually issued through LocoScript-like drop down menus and hitting [RETURN] a couple of times.

Moving around the screen is done by means of the cursor keys. Although one of the advances made by SketchPad II over its predecessor is that you can use the AMX mouse to draw 'freehand', the initial concept of the program was that it was (and is) not absolutely necessary. You can move around and create images using either the mouse or the cursor keys in combination with the various modes of 'Draw', 'Erase', 'Skip' (which means you can move the cursor without affecting the picture) and 'XOR' . This last mode is a rather curious one, that 'turns off' any pixel which was originally lit, and 'turns on' any that was black.

A nib in the air

The 'nib' – or cursor size – that is loaded when you start drawing is 2x1 pixels in size. But several others are available, all the way up to the marker pen 8x4 size. There are two sizes of 'Airbrush' ("A/b" on the menu), which 'scatter' pixels under the cursor.

The slower the cursor is moving, the more intense the shading becomes, but most curious on this menu is the 'Shape' option. The program comes with several pre-defined shapes – but if you are feeling creative you can easily make up your own, unlimited supply – which can be loaded in as the nib shape. Use 'Shape' either to draw an oddly textured line, or to duplicate the shapes on the page.

Once you have exhausted the potential of the simple straight line, you can begin to stretch out. There are facilities for drawing diagonal lines, for making those lines the radii of circles or ovals (functional rather than perfect ones), for filling those circles in, for drawing boxes, filling those boxes in, and...er...well, that's about it.

SketchPad offers no curved lines (unless you want to fiddle around erasing bits of circle), no filling of odd-shaped areas, no aids to technical drawing, and a limited range of paper sizes. All but the last of these drawbacks

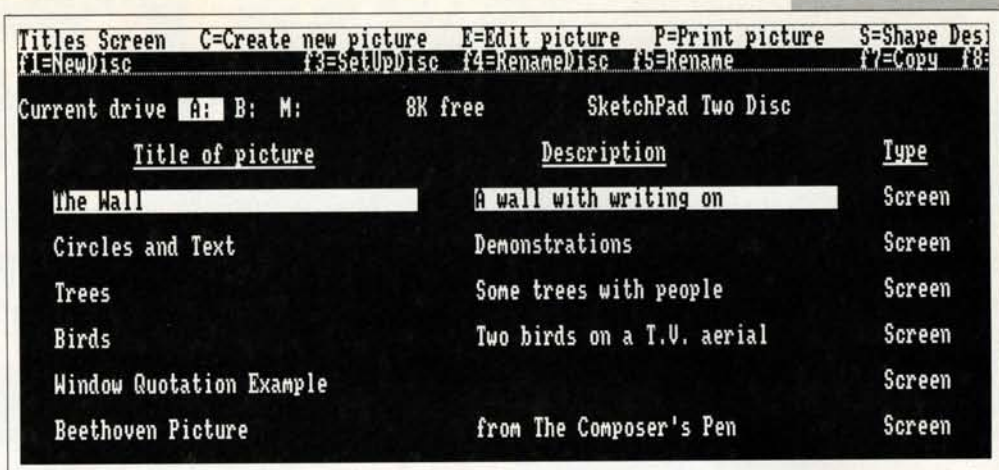
could be conquered by using the 'zoom' function – which blows up a small part of the screen, and allows you to change the picture pixel by painstaking pixel. Needless to say, the process, fascinating though it is, is very time-consuming.

One feature which saves much time and frustration is the "snapshot", which dumps a copy of the latest image into memory either when the computer is told to, or when you leave the drawing environment. It is wise to use this regularly when you are putting the finishing touches to a screen, as one small slip at this stage can easily turn into a disaster as you try to rectify the problem.

At that point, you can simply recall the snapshot from memory, and try again from where you left off. Unfortunately, the computer can only hold one shot in its memory, so you have to be strict about updating it and keeping it clean. And as always, it is wise to keep back-ups on disc.

By now you will have completely destroyed the picture you were editing but will be getting excited about striking out on your own. Pressing exit and selecting 'Quit no save' will return you to the main menu without affecting the original picture on disc, and you can now set about creating your own picture by pressing [C]. You will have to use the f3 "SetUpDisk" command to prepare a disc to receive your masterpiece.

And what is it that you might create on your SketchPad screen? The manufacturers suggest sketches, signs, doodles, diagrams or notices (remember though, that the largest notice you can actually print out is A4 size). Other possible uses include simple letter headings, or making up those box type forms, which you might come across on say, a job application document.



SketchPad allows you to create and store pictures in permanent memory, and this screen shows the current record of the work you have done. Don't forget that machine type will affect the amount of storage space you have available

Producing these kinds of forms in LocoScript involves a lot of preparation, using a variety of complicated word processing codes.

SketchPad II is not a desktop publishing package, but it is very capable. Adding text to images is simple – you can place it very accurately and have a large selection of character types to choose from, and can even design your own – but manipulating it once it is there is pretty much impossible.

Another string to its bow

There is one more application to which SketchPad II can be put, by virtue of its origins. The program is actually a spin-off – Composit Software were aiming to write a package which could produce printed music, and needed to explore the capabilities of the PCW as a graphics tool en route.

What they found during their explorations became the basis both for SketchPad and for their subsequent music package, The Composer's Pen.

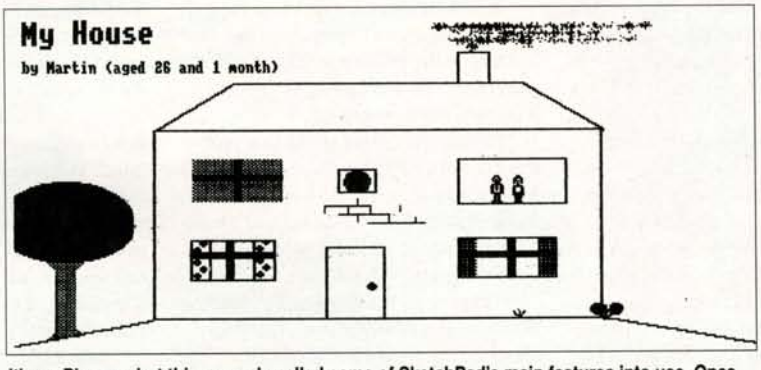
The result is a pair of programs which can be used to support each other. Composers can now 'export' pages of music to SketchPad for tidying up before printing, and can export other symbols (such as note heads, rests, and whatever other devilry their new music requires) across from SketchPad II.

All in all, SketchPad II is ideal for the newcomer to graphics. Once you have mastered the basics, you may well find it perfectly adequate for all your artistic needs. There is more than a passing chance that it will give you the taste for more adventurous graphic endeavours. Whatever your preference, one thing is for sure; the learning process is always a fascinating one, and whether your efforts are displayed on your club or society stationery, or just on your office wall, SketchPad II will provide you with hours of fun. ●

Drawing lots?

Then you'll need to know how to get hold of a copy of SketchPad II. The program is manufactured and distributed by Composit Software, who can be contacted on 0952 595436. SketchPad II costs £15.95. If you are a PCW-owning musician, you may also be interested in The Composer's Pen, also available from Composit, at a cost of £74.95. 8000 Plus reviewed the program in our November 1989 issue.

How to create a simple image



It's no Picasso, but this example called some of SketchPad's main features into use. Once you've mastered the basics, you can develop your skills to produce more complex work

This picture uses many of SketchPad's features. It was created without using a mouse. The main outline uses the cursor keys, with the diagonal line function coming in handy for the roof and the grass on either side of the house. To save time making sure that all the lines join up, it is a good idea to use the co-ordinate display at the bottom of the screen.

The curtains and the figures in the windows all came from the shape designer. Most of them are ones which come with the program, but some are edited from the originals, and some are homemade. The window crosses use the 8x4 nib, while most of the rest of the picture is done with a 2x1 nib. The exposed bricks above the window, though, use the smallest possible cursor head, 1x1.

The trunk of the tree is made from a long rectangle which is filled in with one of the fillings on the [f8] menu. The leaves are a filled oval automatically drawn by the circle-drawing function. The points where the trunk joins with the earth and the leaves are done with the zoom function, making sure that the pattern the used in the trunk shading is continued. The grass uses short lines tidied up with the zoom, while the flowers at the corner were made from small circles with their stems touched in using the zoom once more. The airbrush nib came into its own for the smoke, although because it scattered the pixels rather widely, the zoom was required once again.

Finally came the text, which is written using the program's own character set. The title uses the giant size letters, and the author's name and details are in standard lettering. Other options which the program offers are italic, tall and wide letters. These can be varied yet further by putting them in reverse (ie, black on green or white). Once you are feeling more confident, you can try designing your own character set.

SketchPad II

Pluses

- ▲ Ideal for the novice
- ▲ Mouse not essential
- ▲ Useful Zoom facility

Minuses

- ▼ Execution of some functions can be very time consuming

Range of features	3/5
Ease of use	4/5
Documentation	3/5
Performance	4/5
8000 Plus Value Verdict	14/20

The Master Plan

MasterScan can now be used in conjunction with many graphics and DTP packages - thanks to Graflink2. Alec Rae shows you how to make contact

Graflink2
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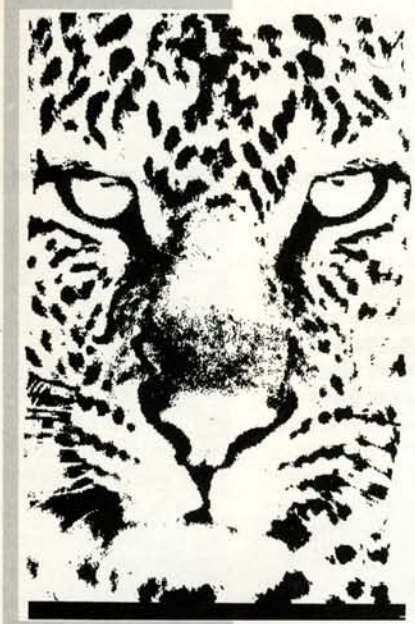
Philosoft ● 0282 870197



MicroDesign and the MasterScan hardware can now work together, thanks to Graflink

Playing the game of picking a winner in modern technology can be frustrating and expensive, as you would know if you were one of those people who invested in a Betamax video.

Even for the PCW owner there are pitfalls. If you are interested in graphics you may well have bought MasterScan, a clever piece of kit that converts your printer into an effective graphics scanner. The major problem with it is that it was designed to be compatible with MasterPaint – a graphics program that did not live up to the ingenuity of MasterScan.

Since then, new desk top publishing programs have come on the scene – like Micro Design 2, for instance – offering extra exciting features, but totally unable to handle picture files from MasterScan.

Well, until now that is. Philosoft have just brought out Graflink2. Basically, this is a new driver program to use with the MasterScan hardware (in other words, the scanning head). It allows you to scan in picture files that can be used in Micro Design. You can also produce files suitable for a number of different DTP and graphics packages such as Newsdesk, Desktop Publisher, Fleet Street Editor and even DR Logo (for some reason that nobody has yet been able to work out).

This will be enough to make a number of people spend £25. But even without the DTP conversion program, Graflink has a lot to offer.

Hold the full page

Most significant is the ability of the program to scan in large areas of graphics – up to a full A4 size. The original MasterScan program would only allow you to scan in enough to fill the actual screen (about 5"x 3.5" when printed out the same size). With Graflink2, you can capture and produce a full page image.

It can handle either portrait or landscape pages (up and down or sideways) in either standard MasterScan format or as a Micro Design file.

Other features are also an improvement on the original MasterScan program. For instance, there are different programs to produce a quality image or to speed up the process – useful stuff when you are scanning a full page.

There are also ways of compromising. Using one command you can improve the quality of a fast scan, and with another you can speed up the process of a quality scan. Like the MasterScan program you can change the magnification of the image from half size up to six times the size.

Let's have a look

Then there is a program to allow you to view any .PCP (MasterScan-type) file on screen and another couple to print out a .PCP file on the printer (one a bit darker than the other). This could be spread over a number of pages of continuous paper. There is even a program to reverse the picture (all black pixels become white and vice versa).

While you can use all these functions from a menu system, you can also use any of the utilities in CP/M and avoid the time-consuming process of loading a large program.

In fact, this might prove one problem for the Graflink package. While the MasterScan program led you through its features with a good manual and a carefully controlled series of menus, Graflink is really quite basic.

There is no documentation other than a long text file on disc, that produces 20 tightly packed pages of instructions. While all the information you need (and a bit more) is provided, it is certainly not the most inviting of documents, and finding a specific piece of information can be quite frustrating. You guessed it. No index.

In your haste to get your new piece of software up and running, you might well be tempted to ignore any documentation. Admittedly, with a reasonable grasp of CP/M you should be able to blunder your way through, but, bear in mind – this is a complicated package with a wide range of options. You do face a real danger of never getting to know the full power of it, just because the documentation does not live up to the potential of the program.

Even the process of installing and customising the program would be quite daunting to an inexperienced user. The information is written in long lists of instructions with very little explanation . For the sake of a few hours more work, a menu driven installation program would have been a useful addition.

A la carte?

It does have a menu system from which you can run the various elements of the package. But even here it is a little half-hearted. Again, it has everything you need but it certainly is not overhelpful or visually interesting.

Having said that, for anyone with a reasonable working knowledge of CP/M, the process of discovery in Graflink2 is quite delightful. By its very nature it is not really intended to be used from a menu system. Far better to use each individual element of the package from CP/M. In some cases this could mean a fairly long learning curve, but it is worth it in the end.

For those people wanting to use MasterScan with DTP packages, Graflink2 is simply a must (apart from StopPress users who can already use MasterScan .PCP files without problem) and this should make up the vast majority of customers.

Graflink's ability to scan large areas is also a distinct advantage. Keep in mind, however, that you are talking big demands on disc space here – each file takes up to 32k. It also takes a long time to scan in a full A4 page. Even at the fast speed it takes around 17 minutes to complete and the quality version takes a full 20 minutes.

Although you may think twice before scanning a full page, Graflink 2 does provide far more flexibility when it comes to scanning. You can scan an image to the magnification you need without fear of losing part of it because the picture was a few inches bigger than the screen. It also claims to improve the quality by cutting out the "fuzzy lines" that MasterScan is prone to.

Graflink2 is perhaps not the program for a PCW novice, but it is invaluable for serious DTP users who are aware of the limitations of the original MasterScan program. ●

Graflink

Pluses
- ▲ Gives MasterScan a new lease of life
- ▲ Excellent flexibility between speed and quality of scan
- ▲ For the experienced user it is both fast and efficient to use

Minuses
- ▼ Documentation and menu system is unhelpful
- ▼ Takes time and disc space

Performance	5/5
Ease of use	3/5
Range of features	4/5
Documentation	1/5
8000 Plus Value Verdict	13/20

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Refresher course

Ribbon re-inking is not the time consuming, smudge-ridden procedure which you might believe it to be. This month, we put a new DIY re-inking product to the test, and show you how to revitalise those PCW printers' fabric ribbons.

Re-ink
£12.95
Lateral Developments
0202 669777

When the ribbon on your PCW's printer is so faded that even NLQ looks like transparent draft quality, it is definitely time to consider replacing it. Or it has been, until the release of a new, user (and ozone) friendly product from Lateral Developments in Dorset.

Their atomiser spray, languishing under the likely name of Re-ink, is, they claim, the economically, environmentally and operationally sound way to breathe new life into fabric ribbons.

The question of why to re-ink is, therefore, one which prompts a straightforward reply. Recycling of any kind is, in our more conservation-conscious society, preferable to replacing. In addition, it will save you a great deal of money. Replacement ribbons cost anything from £3.00 when bought individually; a can of re-inking spray, at £12.95, will revitalise approximately 30 ribbons.

With these benefits in mind, it may come as some surprise that the majority of the PCW-owning public prefer to replace ribbons, or have them sent away for re-inking. And why? It all comes down to convenience – and a dread of dirty hands, ink stains on the kitchen table, and time which could be better spent working on the latest best seller.

Re-Ink, claim the manufacturers, involves no such problems. It is quick, easy to use, cheap, and effective. The company have a monopoly on the market for DIY ribbon re-inking; a previous product, Refresh, has been withdrawn because of its ozone hostility.

So, here at 8000 Plus, we decided to roll up our sleeves and give our sorry collection of tired PCW printer ribbons the Re-Ink treatment. If you decide to embark on the same procedure, you will need to bear a couple of points in mind before you start.

First of all, the fact that a freshly re-inked ribbon, whether you have sent it away to be transformed, or are doing it in the home, is not an instantly re-usable commodity. Ribbons with new ink inside them need a long drying time – a minimum, say the experts, of 24 hours. Indeed, they recommend that you should leave re-inked ribbons for 'as long as possible' before using them again. This is to ensure that the permeating and drying processes have been successfully carried out.

So, if you are thinking of re-inking a ribbon, be sure to have a spare one to hand to use while the original is drying. If you don't have a spare, make sure that you will not be needing to use your printer for at least that day-long period.

Second, the quality of the faded ribbon has to be considered. Ribbon fabric consists of a fine mesh or grid of cloth. If the mesh has frayed or torn during its lifetime, it is a danger to the mechanism of the printer itself. It could easily become trapped inside the printer, or could damage the print head as it moves through. It is far better under those circumstances to buy a brand new ribbon – and considerably cheaper than having to repair a damaged printer.

Before you start the process, make sure that you have all the tools which you are going to need close to hand. It is unwise to leave wet ink or opened ribbon cassettes unattended for any length of time.

Finally, set aside time especially for the task. Hurried re-inking will not produce the best results, which makes the whole process a waste of effort and resources. Even the most novice attempts at re-inking will not take up more than about half an hour, and once you are familiar with the process, you will be looking at a swift ten minutes for transforming old ribbons.

Fact file

- On the PCW8000 series, only the top half of the ribbon is used for printing. To ensure that the bottom section is used as well, the ribbon has a twist at one end, close to the feeder jaw. If you see 'bargain' ribbons in a shop, beware; some may be genuine, but often, the twist is left out, shortening ribbon length and lifetime.
- The ink on new PCW printer ribbons is a soft, black variety, which stays lubricated for long periods of time. Re-ink uses mineral oils which are designed to wrap around the carbon particles of the ribbon, providing the same standard of lubrication and longevity of the original 'native' ribbon.

How long should a ribbon last?

So, how often will you need to re-ink your ribbons? Ribbons vary in length and lifetime according to their price and source of manufacture. Even if you see ten fabric ribbons in ten different shops all at the same price, there is little you can do to check quality until you have them installed in your printer.

The main (official) discrepancy between ribbons is their length. Ribbons are sold as either short or long-life specification. Below is a summary of the respective length and lifetimes for the PCW8000 series and 9512 fabric ribbons. The figures are based on an average calculation.

It is difficult to assess an 'average' lifetime in terms of days, hours or pages of work, since everyone uses their machine for different purposes or lengths of time in a day. For example, if you are using your machine for the output of graphics, the lifetime of you ribbon will be far shorter than if you were using the PCW to prepare the odd letter or report. Provided that conditions are ambient, a fabric ribbon subjected to occasional use could last over a year.

Ribbon length	Short life	Long life
PCW 8256/8512	11m or less	12-20m
PCW 9512	11m or less	12-16m
Character yield		
PCW 8256/8512	400,000	750,000
PCW 9512	400,000	950,000

Next month we will be looking at how to revitalise carbon ribbons for the 9512. Because carbon film ribbons are heat sealed, once you have used them up, there is no way to 'refresh' them like there is for fabric ribbons. However, there is now a DIY carbon ribbon replacement kit on the market, which enables you to cut out the cost of replacing the actual cassette as well. Don't miss next month's step-by-step guide!

1 Before attempting to remove your fabric ribbon, prepare a work surface for the re-inking procedure. This should be completely flat, and relatively firm. Although re-inking does not involve a great amount of mess, you should protect the area with a sheet of newspaper. You will find that a small amount of ink will deposit itself on your fingers, so if you want to, you can buy some disposable clear plastic gloves from a chemist's. These cost around £1.50 per pack of ten, and do not inhibit the work of your fingers as, say, household rubber gloves would do. Now, disconnect the printer from the PCW, and remove the ribbon cassette from the inside. 9512 owners will have to unclip the plastic covering flap first. The cassette should lift out with only a slight amount of resistance. Place it on the work surface with the winding button facing upwards.

2 With the stretch of exposed ribbon facing away from you, you will need a blunt edged knife to remove the top of the cassette casing. It must have quite a thin edge in order to penetrate the hairline gap on the edge of the cassette. With one hand pressing the ribbon cassette firmly down on to the work surface, insert the edge of the knife into the gap which runs around the top of each ribbon. It doesn't really matter where you start; you will find some parts of the cassette casing easier to access than others. If the edge really is too fine to penetrate, make the initial opening with a sharper tool. Now, gently slide the knife egde along the gap which you have created. You will only have travelled a short distance before you come up against a plastic pin. These pins secure cassette lid in place, and should not be disengaged at this point.

3 Continue your course around the perimeter of the cassette lid, until it is visibly raised above the connecting pins. Make sure that you have covered the whole distance; both cassettes have pins facing the length of exposed ribbon, which might not be obvious to you from this angle. Now, with one hand pressing the cassette to the work surface, remove the cassette lid and place it facing upwards away from the other half of the cassette. It is very important to ensure that you have a firm grip of the section which contains the ribbon. If it is not held firmly in place, you could cause the length of ribbon to fall out of the cassette. You can now see those pins which prevented your knife travelling smoothly around the edge of the cassette lid. If you have snapped one or two of the pins, it is no cause for concern.

Hints & Tips

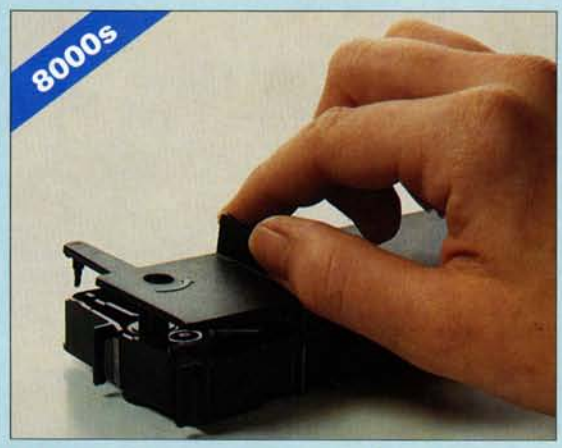
- Regular 'topping up' of your ribbons is just as effective as the full re-ink treatment. The procedure is the same, but as a guide, halve the number of ink pumps stated for total re-inking. The drying time is the same.
- The winder button is one of the few parts of the ribbon cassette which, if broken, will mean a whole new cassette. To protect it during re-inking, place your hand on it to secure the cassette firmly to the work surface. That way, both cassette and winder are less likely to come to any harm.
- A good light source is essential for close work of this nature. However, it is unhealthy for a fabric ribbon. Be sure to remove the completed ribbon from the source immediately after re-inking.
- Although the edge of the knife needed to prise of the cassette needs to be quite thin, do ensure that it is not sharp. Because fabric ribbons are made up of a mesh, catching a thread on a sharp blade could tear the structure of the ribbon.

Hints & Tips

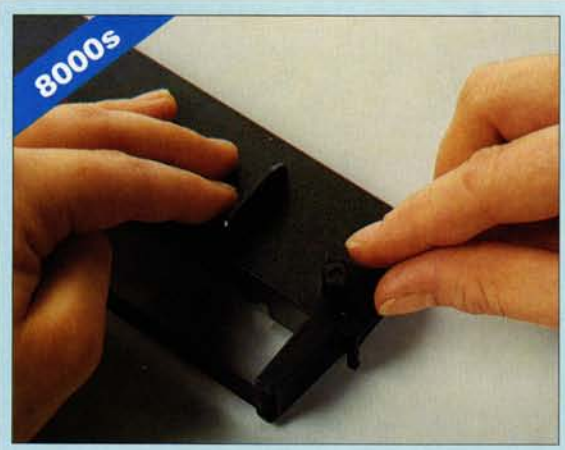
- If you are wary about re-inking, try a few practice sprays on a old, damaged ribbon first. This will familiarise you with the technique in preparation for the real thing.
- The small amount of ink which will be left on your fingers comes off easily if you squirt some 'neat' washing up liquid into the palm of your hand, and rinse it off in warm water. Laminated work surfaces can be cleaned in the same way.
- The first time you use your freshly re-inked ribbon, run a test sheet of paper through the printer. This will ensure that any build up of ink during the drying period at the feeder jaws will clear itself on to a piece of scrap paper rather than an important document.
- The chemicals used in Re-ink are all environmentally friendly and CFC free. However, all pressurised containers require the same amount of care in storage. So, keep the can away from direct heat sources, and do not puncture it.
- As soon as the blackness starts to go from your printouts, it is time to repeat the re-inking – or topping up – procedure.

4 Take the can of ink and shake it vigorously to build up pressure inside the container. Pointing the nozzle downwards, start applying the ink to the ribbon inside the cassette. The can should be held at a minimum of three inches from the ribbon. For the 9512 cassette, approximately 20 pumps will fully re-ink the ribbon. 8000 series owners will need to apply approximately 35-40 pumps to achieve the same effect.

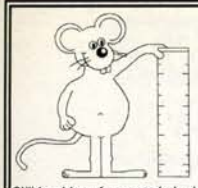
Progress through the bunched ribbon in a logical fashion, ensuring that you have covered the whole area evenly. The nature of both the fabric and the ink in the can means that the ink gradually permeates through the whole ribbon, so that the underside will be as fresh as the top side when the ink has spread. Do not attempt to spray the length of ribbon exposed at the front between the feeder jaws.



5 Holding the cassette firmly, pick up the lid and position it over the case, lining the pins up against their receiving chambers. Take extra care to ensure that the ribbon which winds around the two feeder jaws at either side of the cassette front has not risen to the top of the spool column. This is quite a common occurence, and if you then snap the cassette lid back into place in this situation, you will damage the ribbon and prevent it from feeding through. When the pins are lined up, start at one end of the cassette and gently push them back into their sockets one by one. Finish by pressing the palm of your hand down on the top of the lid. If you break any pins, it will not affect the performance of the ribbon itself.



6 With the cassette firmly in your grasp, twist the winder button in an anti-clockwise direction. When the faded ribbon disappears into the cassette, wind for a couple more turns until the fresh ribbon occupies the space between the feeder spools. Don't worry if the 're-inked' ribbon does not appear to be evenly covered at this stage; the ink will permeate gradually. Similarly, the stretch of faded ribbon which is now inside the cassette will be refreshed by the spreading of the ink which you have deposited on to the bunched ribbon inside. Now all you have to do is set the cassette aside to dry for a minimum of 24 hours in a non-humid atmosphere, but away from direct heat or air conditioning. The longer you leave the ribbon, the better the effect will be - and there will be no possiblity of smudging on the paper. When you come to re-use the fresh ribbon, wind it forwards again before you put it back in to the printer.



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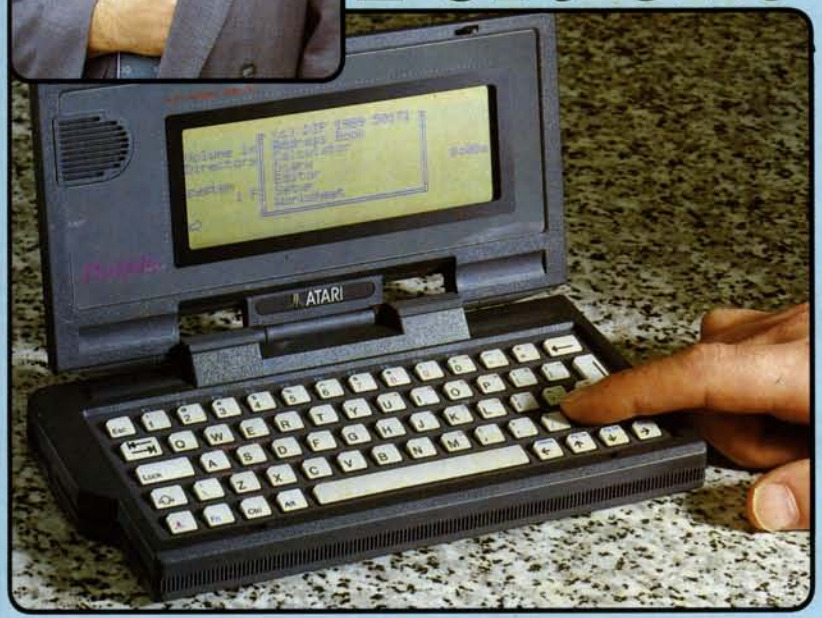

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The new Portfolio from Atari is the world's first pocket-sized electronic organiser that is also a powerful PC compatible computer, with a full QWERTY keyboard and scrolling 80×25 character display.

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SPECIFICATION

- ★ ***Processor:*** Intel 80C88 at 4.9152Mhz.
- ★ ***Operating System:*** Compatible with MS-DOS 2.11.
- ★ ***Internal ROM:*** 256K containing BIOS, operating system and applications suite.
- ★ ***RAM:*** 128K with an internal RAM disk, configurable from 8K. Externally expandable to 640K RAM.
- ★ ***Keyboard:*** 63 keys, QWERTY, IBM PC BIOS compatible. Buried numeric pad and function keys. Optional key click.
- ★ ***Character Set:*** Extended IBM ASCII (255 characters).
- ★ ***Mass storage:*** credit card sized memory cards (32K or 64K or 128K RAM).
- ★ ***Display:*** Graphics LCD, supertwist technology, MDA compatible, 40 columns x 8 lines, 240 x 64 pixels (with the option to window a full 80 x 25 character display). Keyboard controlled contrast.
- ★ ***Peripherals:*** 60 pin expansion BUS to take serial and parallel ports and memory expansion units.
- ★ ***Size:*** 8" x 4" x 1" (200mm x 105mm x 29mm).
- ★ ***Weight:*** 495 grammes (with batteries).
- ★ ***Applications:*** calendar and diary, address and phone book, Lotus 1-2-3 compatible spreadsheet, text processor, communications software.

COMING SOON!

In addition to the excellent software built-in to the Portfolio Free of Charge (see right), other software and peripheral products, such as the sophisticated Pocket Finance package and serial/centronics interfaces are available. And it doesn't stop there. Many manufacturers have recognised the potential of the Portfolio and have already started to design new peripherals and software. Products currently under development include: Serial interface with built in mini modem, Apple Macintosh interface, business, utility and programming software plus a range of adventure and battle strategy games. For further free details on the Portfolio range, fill in the coupon below and return it to Silica Systems now.

5 BUILT-IN APPLICATIONS TO GET YOU ORGANISED!

To get you started, Portfolio comes with a suite of five useful functions built-in, all accessible from a simple menu display.

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ADDRESS BOOK & DIALLER

Portfolio has a complete address book facility that allows you to store hundreds of addresses and phone numbers. And, at the touch of a button, you can retrieve any one of them, or search for a specific grouping, such as "all Italian restaurants". And, when you are ready to book your table, hold your Portfolio to your telephone mouthpiece and use its special built-in tone dialler to dial the number for you.

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SPREADSHEET

For real calculating power, Portfolio has a Lotus 1-2-3 compatible spreadsheet built-in. It has 127 columns x 225 rows and reads/writes Lotus V1.0 and V2.01 files, so you can transfer data to and from Lotus 1-2-3 on your desktop PC. The Portfolio's 256K ROM includes MS-DOS and PC BIOS compatible systems software.

MEMORY CARDS

Portfolio can store and retrieve data and programs from its own RAM, or from small credit card size memory cards, that slot into its built-in card drive. The cards are available in three sizes, 32K, 64K and 128K, so you can carry a library of data in your pocket. The card drive also accepts ROM cards, which can contain commercial or custom software.

POWER SUPPLY

Portfolio is powered by three AA batteries which will run for up to six weeks with normal use, or from the mains using an adaptor. All the peripherals take their power from the Portfolio, so no extra batteries or adaptors are required. A 'battery-low' warning and memory back-up ensure that information is not lost when the batteries are changed.

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Portfolio can communicate with other computers and supports a growing range of peripherals via a built-in 60 pin bus connector. Peripherals available include serial and parallel interfaces and memory expanders (to 640K). You can also add a card drive to your desktop PC, to enable it to read/write to Portfolio's cards.

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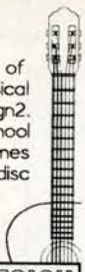

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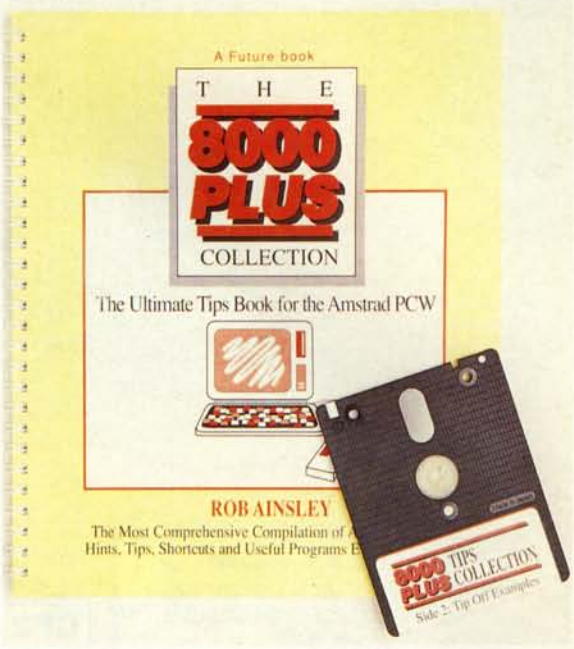

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Citizen's Advice

Karen Donaghay travels to London to visit a business consultancy with a difference - and finds a fleet of PCWs giving out plenty of advice

On the night of President Nasser's death in Cairo, in September 1970, John Bonar could be found walking boldly through no-man's land, between two opposing armies. "I walked from the Syrian border", he explained, "through to an enclave in North Jordan, held by the PLO, and then back again the next day." At that time, risking life and limb was all part of a day's work.

After eight years as a foreign correspondent in the Middle East – working for papers such as the Sunday Times and the Financial Times – John Bonar has a wealth of tales to tell. The words hostage and hijacking are bandied around in conversation, as though they were commonplace events. These days, however, John can be found a good deal closer to home.

His new business, based in the heart of south London, is run with the aid of a fleet of PCWs. Business Online, as his venture is called, is certainly a good idea. It provides information for businesses throughout the UK – but in this case, with one important distinction. Rather than spread the word via the printed page, Business Online has chosen as its medium the computer screen: the information it provides comes via modems connected to the standard telephone network.

"Business Online has a unique flexibility," John explained. "Using our system can be an education – allowing people, for the first time, to feel comfortable with online databases." True enough, it is simple enough for any PCW owner, who possesses a modem and communications software to call up the system. This gives them instant access to a whole range of business contacts and advice.

John insists that the step from journalism to running Business Online was a natural progression. "As a writer," he said, "I was always a generalist. I would cover anything from shootouts, to agricultural reports." In keeping with this trait, his new information service covers a wide range of topics, from mortgage advice to the cost of running an advert on TV. "Our aims," said John, "are to provide the small and medium sized business with the cutting edge on information and advice."

A helping hand

John has, of course, plenty of experience in gathering such information, but what about the computer skills needed to launch the venture? Luckily, John was a fan of the PCW at the outset.

"When I came back from the Middle East," he said, "one of the ➤

Dial-a-page

So, what does a the novice with a PCW do to access the Business Online system? It is in fact very simple. You need to begin with both a modem and a copy of Sage's communications package, Chit Chat. The latest version of Chit Chat actually has Business Online as one of the options on the menu. Simply load Chit Chat and choose that option.

Business Online do not charge subscription fees to the user, and dialling onto the system costs no more than an ordinary telephone call. Once linked into the Business Online database, a series of choices come onto the screen.

You can choose, for example to look at information on the European single market, on training or any one of a variety of options. The layout is intended to allow you to find the information as quickly as possible, helping of course to keep your telephone bill to a minimum.

Although it is perfectly possible to enter the system as a completely anonymous user, Business Online encourage their users to register with them. This, they say, helps them to build up a clearer picture of who their users are and allows them to keep in touch by sending them free newsletters and other information. To allow newcomers to register easily, they include a special registration screen within the system.

There are other possibilities available to those who wish to set up their own channels of communication. Electronic mail is the fastest way of sending messages to fellow PCW users, or indeed someone using another type of computer. Business Online can provide the facility to receive and send mail between users for the annual fee of £25 per user. This includes the free provision of a group bulletin board.

If you would like to know more about either using or indeed, advertising on the system itself, then Business Online would be happy to provide further details. they can be contacted on 071 7385154. If you have an earlier version of Sage Chit Chat, and need to type in their Viewdata number, it is 071 7331403.

On line for success

Business Online's plans for the future are ambitious and exciting. One aim is to place special Business Online terminals in public places, such as libraries and even in high streets. They have also set the date for the release of a new on-line business magazine, which, like the existing service, will be accessible via a computer and a modem. We will keep you posted on any further developments in the pages of News Plus.

first things I did was to buy an Amstrad PCW. I soon realised that I had a powerful little machine on my hands."
Although he originally bought it for personal use, that powerful little machine now plays an important role in his business. There are, in total, five PCWs at his offices, all of which are kept in constant and diverse use.

The final screens, seen by users up and down the country, are all prepared using LocoScript 2 and LocoSpell. "I have never strayed from LocoScript," John told us. "I find it a very friendly and easy to use word processor."
The PCW plays just as large a part in the administration of the company. "Our staff use LocoFile to keep records of the advertisers", explained John, "and LocoMail to send out customer mailshots. I also use Supercalc 2 to do financial projections and cashflows."

Even the publicity does not escape the attentions of the PCW. "I'm sure I don't have to tell you which desk top publisher this came from," said John, handing over a very professional-looking document, bearing all the signs of a Micro Design 2 page.

Expert advice

The PCW quickly assumed a key role in the proceedings, and was welcomed by John's colleagues. "Many of our staff were trained on the PC using word processors such as Wordstar. They say that LocoScript is easier, quicker and less complicated to use".
A glowing testimony to the PCW but not one that Rhod MacKenzie, now a partner in the company, initially agreed with. He brought with him several years of experience in the computer industry, and a prediliction towards what he calls "big box solutions" and "proper computers". But John Bonar stood his ground and now, six months later, Rhod is also a PCW fan.

"It's a great little workhorse," he said fondly. "It is easy to use and the software is a good deal cheaper than for many other machines. I would recommend them to any small business. "

In fact, on several occasions Rhod has done exactly that. When exhibiting at shows, people often ask what hardware they need to access Business Online. Although, it can be dialled up from a wide range of machines, including the PC and the PCW, Rhod now recommends that users buy a PCW 8512 and a modem. "For a novice who wants to understand computing it is the ideal machine," he said.

Both have strong, and typically pragmatic, views on choosing the right computer. As John put it, "Most applications are available for both the PC and the PCW. The difference is that, in many instances, what will cost £50 for the PCW will cost £200 for the PC."
"People are conned into buying a PC by people who want to sell them. There are profit margins to be made on a PC which aren't available on a PCW," added Rhod. The end result, say the partners, is that the PCW is undersold - not an accusation which could be made of their own burgeoning business. Within six months, they have expanded from a staff of four to sixteen.

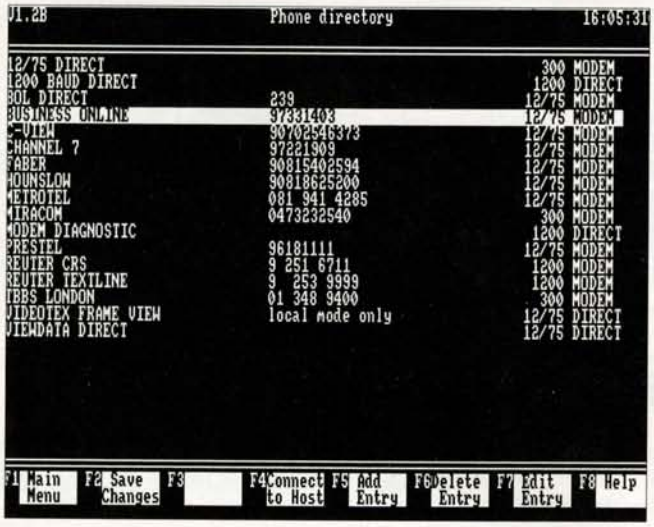
One step beyond

The response from bank managers and enterprise initiatives who have seen the system has been enthusiastic. They regard it as a service which can keep not only their clients but also themselves better informed.

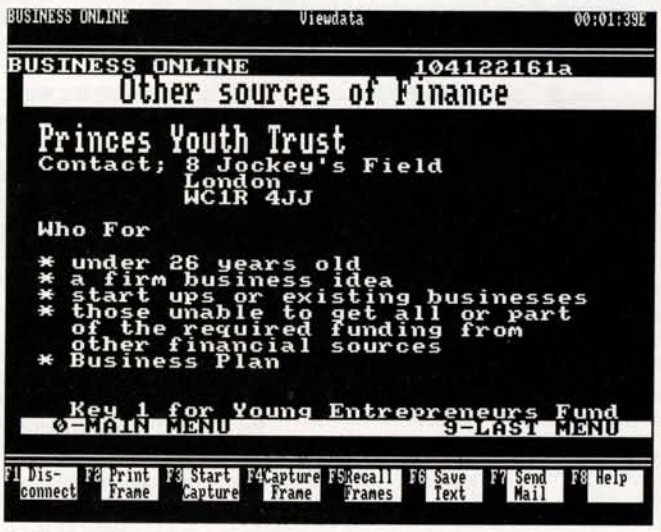
"Our whole philosophy," said Rhod, "is to keep it simple. The computer industry has thrived on being seen as complicated and difficult, and that has held back the growth of computerised systems. We try to cut the mystique to an absolute minimum and make our system as easy to use as a cash dispenser."

Does John miss his career as a journalist? "Not at all," he asserted. "Business is just as exciting. There are the same traumas – meeting deadlines and getting things done. There is still a lot of personal challenge." It is a challenge, which has involved the PCW in providing a new kind of information network - and a reminder that we are moving ever closer to the time when all information will be available at the push of a button. Business Online have a clear raison d'etre. As John said, "It's a library on the end of your telephone."

In the Know



Communications software (such as Sage Chit Chat) and a modem are what you will need to access Business Online. Once connected, you are given a 'directory' – this one has Business Online as a standard option on the menu



Businesses, whether fully-fledged or in their infancy, have a host of information to consult in the screen pages of Business Online. Here, you can see advice on a special scheme which provides funding for new business ventures

When you dial up the system from the comfort of your own home the screens appear in typical teletext format: very much like the Ceefax screen shown on TV. In the case of Business Online, each screen begins life as a simple LocoScript document. The page format (28 lines and 38 characters wide) ensures that the page is the right size to fit the screen and LocoSpell is used to check each screen.

The process of putting this screen on to the PC hard disc begins by saving the LocoScript file as an ASCII file. It is then transformed into PC format, using an application called TDOS, and the resulting file is saved on to a 5.25 " disc. A Pace drive was recently fitted to John Bonar's PCW to allow him to do this.

The screen is then brought over to the PC, and added to the pages of existing information stored on a hard disc. This is the final stage, and is what the user dialling in will actually be greeted with. To provide hard copies – or printouts – of the actual pages, John finds that the best method is to dial up his own system using one of the company's PCWs and then to do a screen dump of any particular page (using the key combination [EXTRA][PTR]).

John finds that the built in PCW dot-matrix printer is ideal for this task thanks to the fact that it is so simplistic. Rather a back-handed compliment, you might think. But not as far as John is concerned.

He describes the dot matrix as, "an amazingly versatile and much undervalued printer." A simple keypress sequence allows him to print exactly what is seen on the screen, and that is exactly what he needs.

THE ATARI ABC

Now, there's a PC-AT compatible that not only solves problems like other AT compatibles, it also solves the one problem that its predecessors have created ... affordability.

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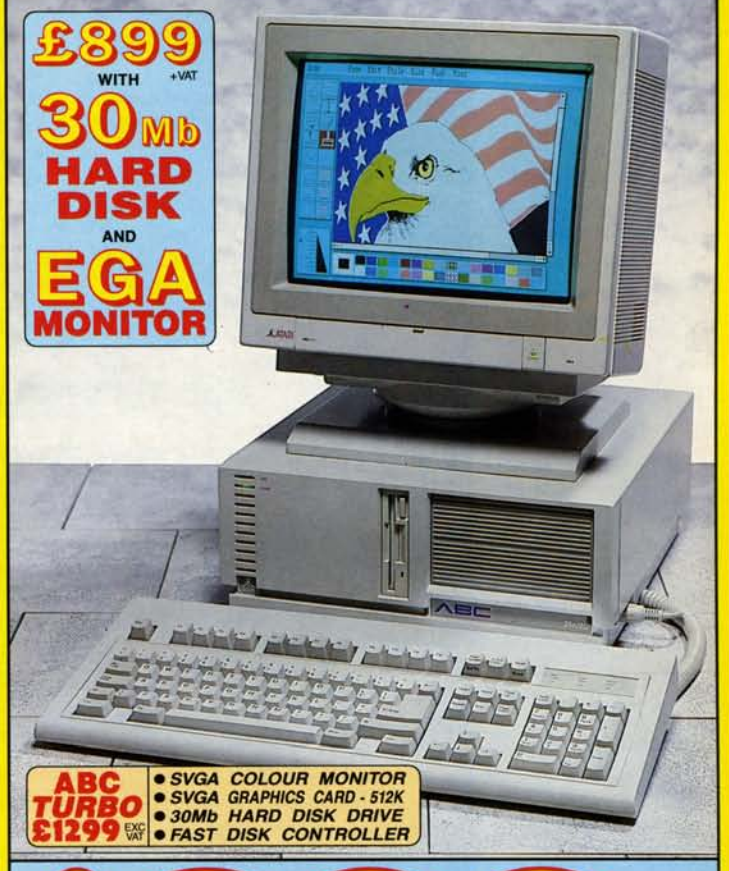

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Operation Budget!

Tony Hart shows how the combination of the PCW plus the Mini Office spreadsheet can provide the small business with a powerful budget planning tool

Anyone starting a small business will find that bank managers or accountants will recommend that three essential planning exercises be carried out. These are the Business Plan, the Operating Budget and the Cash-Flow Forecast. The Business Plan will be a wide-ranging document covering all aspects of the venture, from simple facts like personnel profiles, addresses and premises to higher-level statements about the product or service to be supplied, and how it will survive and succeed in its' market-place. It will conclude with a financial statement of the investment needed to get, or keep, the business up and running. The Operating Budget is a major planning tool that will forecast the monthly profitability of the business over a financial year, taking into account all major revenues (sales) and expenditures (wages, material costs, building and machinery costs). The PCW, combined with the Mini Office spreadsheet module, equips you with the means to provide all of these things - and it couldn't be easier to use.

Getting started with Mini Office

To access the spreadsheet, switch on the PCW, load the Mini Office disc and at the CP/M prompt type "sheet". This command will immediately load the spreadsheet module and bring up the menu screen. The first thing to do is to reset the decimal place setting; since we are only dealing with pounds and not pence, we need to change the setting from the default of two, to zero decimal places.

To do this, select "Alter spreadsheet" and press [ENTER]. Select "Cell display" and press [ENTER]. Select "Decimal places" then press [ENTER] until the value reaches zero. Select "Set all cells as above" and press [ENTER].To the question "Are you sure", press [Y], then wait for a few seconds while the sheet is updated. Press [EXIT] twice to return to the main spreadsheet menu.

Now we need a new spreadsheet to "Edit". Select "Edit data" and press [ENTER]. An empty spreadsheet screen will be presented with just column and row references shown. The next task is to put in the title and then to lay out the descriptions of the columns (month's budget and actual) across the top of

The Mini Office Spreadsheet module menu. You need to customise the sheet before you start

the sheet and the descriptions of the rows (items of income and expenditure) down the side of the sheet.

As can be seen from the printout above, the left-hand column A is very wide to accommodate the long descriptive text entries. It will simplify the spreadsheet layout if we first widen this column with the Alter Width command, [ALT]/[W]. To do so, cursor to column A. Hold down [ALT] and press [W].

Press the left arrow key 14 times and column A will widen each time you press the key. All the text descriptions are entered using the text string command, [ALT]/[S]. To enter the name of the company, do the following:-
Cursor to cell A3
Hold down [ALT] and press [S]
Type in the text ("Blue Milk Bottle Co.")
Press [ENTER].

Carry out this same exercise for all the other text entries in column A. To save a little time, after entering the "separator" cell consisting of the twenty hyphens, into cell A3, copy it into the other separator cells (A6, 11, 13, 18, 20, 22, 24, 33, 35, 37 and 39) as follows:
Place the cursor on cell A3
[COPY]
[S] to copy a single cell
Cursor to cell A6
[C] to make the copy
Cursor to cell A11
[C] ... and so on ...
You will end up with all the text entries for column A entered on to the sheet.

Designing the Sheet

An operating budget spreadsheet is a fairly simple spreadsheet to design and use. However it is quite large since it has to accommodate forecasted and actual performance figures for each of twelve months and for the year end. This brings the columns needed to 27. The rows of the spreadsheet will contain the individual income or expenditure items and thus can vary from business to business.

The 'window' facility of a spreadsheet makes it easy to view, print and use a large spreadsheet like this one. Our sheet will be split into five windows; one for each three month 'quarter' plus one for the year end results.

The example we're working with is that of the small manufacturing company – The Blue Milk Bottle Co. Ltd. and the printout shows a completed spreadsheet for the first three

	A	B	C	D	E	F	G
001	Blue Milk Bottle Co.						
002	..Operating Budget						
003							
004	Items of Income	Jan	Jan	Feb	Feb	Mar	Mar
005	..and Expenditure	Budget	Actual	Budget	Actual	Budget	Actual
006							
007							
008	Income						
009	..Sales	3000	2600	3200	3400	3500	3900
010	..Other Income	100	210	100	0	100	400
011							
012	..Total	3100	2810	3300	3400	3600	4000
013							
014							
015	Direct Costs						
016	..Materials	500	350	550	550	600	750
017	..Wages	750	750	750	750	750	800
018							
019	..Total Direct Costs	1250	1260	1300	1400	1350	1550
020							
021							
022	Gross Profit	1850	1550	2000	2000	2250	2450
023							
024							
025	Indirect Costs						
026	..Equipment	120	100	140	200	160	200
027	..Motor	200	150	200	210	200	210
028	..Rent/Rates	130	130	130	130	130	130
029	..Gas/Electric	100	90	120	140	100	130
030	..Phone	75	55	90	120	100	120
031	..Admin	30	75	50	100	50	75
032							
033							
034	Total Indirect Costs	655	550	730	920	740	905
035							
036							
037							
038	Net Profit pre-tax	1195	670	1270	1080	1490	1545
039							

The completed operating budget for the first quarter of a financial year

months, January to March. The columns are laid out in monthly and yearly budgetted forecasts and actual results. The rows have been separated between income and expenditure. Income, for the Blue Milk Bottle Co. Ltd. is simply the amount of sales for the period plus a miscellaneous 'other income' column. Expenditure, or Costs, is more detailed and is divided between the direct costs of manufacture, wages and materials, and the indirect costs of manufacture, commonly known as 'overheads'. The 'Totals' rows are the totals of Sales and the totals of Direct and Indirect Costs for each individual month or year end. Notice also the Gross Profit, and the well known 'bottom line' or Net Profit which is the Gross profit less overheads. The calculations are then entered into the 'totals' rows.

Laying out the monthly columns with calculations

Now that the "item description" column has been set up, we can do the monthly columns. to do the monthly columns, we will set up one column, enter the calculations, copy it to five others, then enter the month names and the "Actual/Budget" text. So, cursor to cell B3 with [ALT]/[S] and type "-------" [ENTER]. Now copy this to the other "-------" separator cells using the same single-cell Copy command as before.

The calculations to be entered are all simple addition or subtraction formulae and they are all entered using [ALT]/[F] for 'Enter Formula'. To do this, cursor to cell B12 using [ALT]/[F] and type "SUM(B9:B10)" [ENTER].

This formula will calculate the total income, i.e. "Sales" and "Other income". All the calculations are entered in similar fashion as per the following table:-

Cell Formula Meaning
B12 SUM(B9:B10)
Sales+Other Income=Total income
B19 SUM(B16:B17)
Materials + Wages = Direct costs

A full quarter's columns have been created using the powerful 'copy' command

B23 SUM(B12-B19)
Income-Direct costs=Gross Profit
B34 SUM(B27:B32)
Total of all indirect costs
B38 SUM(B23-B34)
Gross profit - Indirect costs = Pre-tax profit

Now we're ready to use the 'Copy' command again to make five copies of this column, both the separator text and the formulae that we've just entered as follows:

Cursor to column B
[COPY]
[C] to copy a column
Cursor to column C
[R] to make a "relative" copy of the column.

Now repeat the last two steps for columns D, E, F and G. The "relative" copy function makes sure that when a calculation in column B is copied to column C, the row references stay the same but the column references change. So, "SUM(B9:B10) copied to column C becomes SUM(C9:C10). The final steps are to enter the month names "Jan", "Feb" and "Mar" and the "Actual" and "Budget" descriptions in rows 4 and 5. The printout shows the finished spreadsheet prior to the budget information for this period being entered.

Filling in the Forecasts

The forecasted budget values can be taken from the printout in "Designing the sheet' and entered by simply moving the cursor to the relevant cell and typing in the number. So to enter the budgeted sales for January, cursor to cell B9 and Type "3000" followed by [ENTER].

Repeat this for all the other budgeted figures. Note how the values in the "Total" cells will automatically change each time you enter a new value. Here, at last, you're seeing the true benefit of the spreadsheet.

The spreadsheet has now been designed, laid out, and the budgetary figures entered. All that remains is to start using it by entering the monthly values of Income and Expenditure at the end of each month and seeing how the actual results line up against the forecasted ones. We've already seen the completed sheet for a small manufacturing company for the first quarter of the calendar year.

Quarterly, or yearly, period end figures will provide a summary of the budgeted and actual figures for that given period. The printout above is an extension of the same, original spreadsheet, with the same separators and column headings which can be copied from column G. The difference is that the calculations are made on a row by row basis.

```
    A..................... H..... I..... J.....
001 Blue Milk Bottle Co.
002 ..Operating Budget
003 --------------------           ------- -------
004 Items of Income                Quarter Quarter
005 ..and Expenditure              Budget  Actual
006 --------------------           ------- -------
007
008 Income
009 ..Sales                         9700    9600
010 ..Other Income                   300     610
011 --------------------           ------- -------
012 ..Total                        10000   10210
013 --------------------           ------- -------
014
015 Direct Costs
016 ..Materials                     1650    1910
017 ..Wages                         2250    2300
018 --------------------           ------- -------
019 ..Total Direct Costs            3900    4210
020 --------------------           ------- -------
021
022 --------------------           ------- -------
023 Gross Profit                    6100    6000
024 --------------------           ------- -------
025
026 Indirect Costs
027 ..Equipment                      420     500
028 ..Motor                          600     600
029 ..Rent/Rates                     450     450
030 ..Gas/Electric                   300     380
031 ..Phone                          265     325
032 ..Admin                          150     250
033 --------------------           ------- -------
034 Total Indirect Costs            2185    2505
035 --------------------           ------- -------
036
037 --------------------           ------- -------
038 Net Profit pre-tax              3915    3495
039 --------------------           ------- -------
```

Here you can see the complete summary sheet for the first quarter's results

For example, cell I9 in the printout (Budgeted sales for the quarter), is the sum of the budgeted sales for January (B9), February (D9) and March (F9). So, the formula to be entered in this cell, using the [ALT]/[F] command, would be SUM(B9+D9+F9).

To finish off the column, simply make a "relative" copy of this cell into all the other value cells of the column (cells 10, 12, 16, 17, 19, 23, 26-32, 34 and 38).

To finish off the quarter make a "relative" copy of this column-I into column-J then add the column titles – "Quarter/Actual/Budget".

The other three quarters of the year, Apr-Jun, Jul-Sep and Oct-Dec, are structured exactly the same as for the first quarter which has just been created. The only things that will change are the values in the budget and actual columns and, of course, the names of the months. To save time, all we need do is make a copy of column G eighteen times, then change the respective values and titles.

The use of Windows

The "Windows" facility of the spreadsheet facilitates printouts of the sheet. A window is literally a view, or window, of part of the spreadsheet. We will need five windows; one for each quarter plus the annual summary.

Additionally, windows are useful for screen handling. The use of spaces and separators makes the printed sheet easier to read and interpret. Windows also allow easier screen handling. If we wanted to have a full quarters' spreadsheet on the screen. All we need to do is to bring just the values into the "window", ignoring the spaces and separators, by selecting the columns and rows we want displayed.

To create a window like the one above,

The Window option allows you to see specific rows and columns, and save valuable space

press [PAGE] until "Window 1" shows in the top display. Then [SHIFT]/[f8] to the window-row select command. To include the relevant rows, move the cursor to that row and press [RETURN]. So, cursor to A8 (Income), then press [RETURN]. Repeat the above for the rows shown. Press [SHIFT]/[f8] to complete the window row selection To choose the columns we want, press [SHIFT]/[f6] for the window-column select command, cursor to column A, then press [RETURN]. Repeat the above for columns B – G. Press [SHIFT]/[f6] to complete the window-column selection. The complete quarter's sheet can be viewed by selecting 'Window-1' with the [PAGE] select window command.

Listings

Transform your PCW into a messenger, let it help you remember your cash dispenser card number, or use it as a typing teacher! Martin Le Poidevin shows you how

PCWTEXT.BAS by David Patient

We keep suggesting that you can put your PCW to much more use than just word processing, using things like spreadsheets, databases, graphics and so on. All of them very commendable, but terribly unsociable – just you and the computer, and neither of you talking to anybody else.

But here is a program from David Patient that will make your computer talk to the world. You could use it for advertising, or perhaps as an information display at a show or open day, or you could use it just to leave a little message for your beloved as they walk in on Valentine's Day.

And the message that you leave can be just about as long as you like. In fact, to show the program at its best you will want more than one page. Once you have set up the pages, the program will cycle through them continuously, rather like Teletext, returning automatically to the first page when it has finished.

What is more, it saves the pages to disc as files, so that if in future you want to use individual pages again in a different order, you can quite easily do so. All you have to do is make sure that all the files you need for a particular sequence are on the same drive.

If you are clever, you could make that the M: drive, and the operation will be even more slick.

The program itself makes what could have been a complex problem fairly simple. It has two distinct parts – making the pages (which includes saving them to a simple Jetsam 'Open' file) and displaying them. This makes use of the command 'DISPLAY' which displays the contents of any file to screen.

First of all, though, you will want to make the pages. All pages are referred to by number, so when you begin choose page number 1. You are presented with a blank page, with the cursor blob in the top left hand corner. You can move the cursor with the cursor

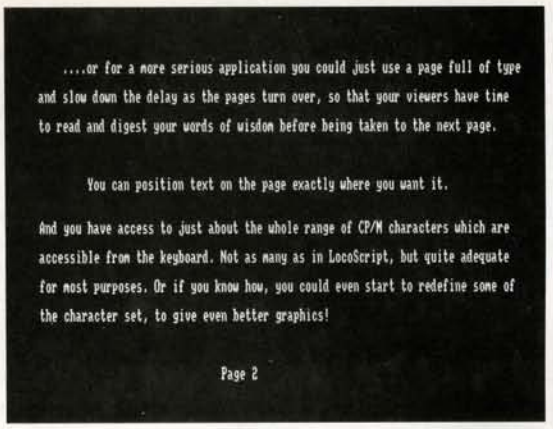
```
10 REM *****PCWTEXT - By David Patient******                    135E
20 cls$=CHR$(27)+"E"+CHR$(27)+"H"                               09F0
30 i$=CHR$(27)+"p"+CHR$(32)+CHR$(27)+"q":PRINT cls$             12FA
40 PRINT CHR$(27)+"b"+CHR$(53)                                  0A68
50 INPUT"(S)ee pages (M)ake a page (S/M) : ",a$                 1359
60 IF UPPER$(a$)="M" THEN 70 ELSE 370                           0EC9
70 PRINT cls$                                                   062E
80 DEF FNloc$(y,x)=CHR$(27)+"Y"+CHR$(32+x)+CHR$(32+y)           1422
90 PRINT FNloc$(30,1);:INPUT"Enter page no : ",page$            169C
100 PRINT cls$                                                  0693
110 DIM dat$(90,31):x=1:y=1:PRINT CHR$(27)+"e"                  12AC
120 page1$="PAGE."+page$                                        0995
```

The opening menu and all the other necessaries for the program are set up here.

```
130 REM *******MOVE CURSOR/CHECK FOR KEYS******                 1420
140 IF x<=1 THEN x=1:ELSE IF x>=88 THEN x=88                    14D5
150 IF y<=1 THEN y=1:ELSE IF y>=29 THEN y=29                    14BD
160 PRINT FNloc$(x,y);:a$=INPUT$(1):a=ASC(a$)                   1503
170 IF a=31 THEN y=y-1:GOTO 140                                 0CED
180 IF a=30 THEN y=y+1:GOTO 140                                 0CE5
190 IF a=1 THEN x=x-1:GOTO 140                                  0D27
200 IF a=6 THEN x=x+1:GOTO 140                                  0D12
210 IF a<>35 AND a>=33 AND a<=126 THEN 220 ELSE 230             1280
220 PRINT FNloc$(x,y);a$:dat$(x,y)=a$:x=x+1:GOTO 140            1895
230 IF a=32 THEN 240 ELSE 250                                   0BE1
240 PRINT FNloc$(x,y);a$:dat$(x,y)=a$:x=x+1:GOTO 140            189B
250 IF a=35 THEN 260 ELSE 270                                   0BF8
260 PRINT FNloc$(x,y);i$:dat$(x,y)="#":x=x+1:GOTO 140           189B
270 IF a=26 THEN 290 ELSE 140                                   0BFE
```

Checking which keys have been pressed, and reacting to it, are important parts of any program – and they take place here.

No need to say it with flowers anymore, thanks to PCWTEXT.BAS



A series of pages can be created and seen in readable sequence

keys, and type text wherever you want it on the screen. The mode is simple 'overwrite' – that is, when you type a character it will obliterate anything underneath it, and not push it further along the line. This has advantages and disadvantages. When you put text somewhere, it stays there; but adding one letter means retyping the whole line. By the way, for delete, just use the space bar, or else overwrite the text. And we're sorry, but there are no returns. Again, that serves to keep things simple.

You can use just about all the characters on the keyboard, but the hash ([#]) key has been redefined to give a white triangle. Why? So that you can build those big block graphics which look so good. When your first page is complete, you can store it to disc by hitting the [f1] key. Then choose the 'Make' option again to create page 2.

When all your pages are ready it is time to display them. Choose the 'See' option this time, give the details required, and then sit back and watch the sequence (by the way, it doesn't begin by asking for the 'first' page, but for the 'next' page).

To stop the sequence, just hit the [STOP] key, which will return you to the BASIC "Ok" prompt.

If you need to get back into the program, type "run" again. But if you don't, you may quickly realise that your cursor has disappeared.

If this is so, don't panic. At the "Ok" prompt, simply type in:

Print Chr$(27)+"e",

hit [RETURN], and hey presto, your cursor is restored. ➤

Hints and tips

Several CP/M commands will run within BASIC, and could be useful for this program. The simple "DIR" command will list everything on your disc, so that you know how many pages you have (however, BASIC will not support the more complex "DIR" options; if you need to know what those pages actually say, choose the command "TYPE" followed by the name of the file (with a full stop after "PAGE" eg TYPE PAGE.1 – note that you do not need inverted commas). If you want to get rid of a page, the command you want is BASIC's rather aggressive "KILL", this time with inverted commas – KILL "PAGE.1".

```
280 REM *****SAVE SCREEN****                                          0BA8
290 OPEN "O",1,page1$                                                 0762
300 PRINT cls$                                                        0697
310 PRINT"Please wait, page being saved as ";page1$;                  18F2
320 FOR p=1 TO 30:FOR acc=1 TO 90                                     0DA7
330 IF dat$(acc,p)="#" THEN PRINT #1,i$;ELSE 340                      1225
340 IF dat$(acc,p)="" THEN PRINT #1," ";ELSE 350                      1242
350 PRINT #1,dat$(acc,p);                                             09FE
360 NEXT:PRINT".";:NEXT:CLOSE:CLEAR:RUN                               1723
```

The "OPEN" command creates a file on disc, and print # writes in it.

```
370 REM **SET UP SEQUENCE OF SCREENS***                               1456
380 PRINT cls$:INPUT"How many pages to see : ",pages                  19E9
390 INPUT"How many seconds between each screen : ",delay              1EF3
400 DIM page$(pages):DIM pageno$(pages)                               125B
410 FOR p=1 TO pages                                                  093A
420 PRINT"Enter number of next page to display :";                    1A37
430 INPUT" ",fg$                                                      06B2
440 page$(p)="PAGE."+fg$:pageno$(p)=fg$                               0EB5
450 NEXT:PRINT CHR$(27)+"f":z=1                                       0E86
460 IF FIND$(page$(z))="" THEN 480                                    0D1C
470 PRINT cls$;:DISPLAY page$(z):FOR d=1 TO (1025*delay):NEXT         1DC6
480 z=z+1:IF z=pages+1 THEN z=1                                       0F3F
490 GOTO 460                                                          04D5
```

"DISPLAY" is the command which prints each file in turn to the screen.

```
cardsafe
 A  B  C  D  E
 8  8  9  3  9

 F  G  H  I  J
 1  7  3  7  1

 K  L  M  N  O
 3  0  2  7  9

 P  Q  R  S  T
 8  5  7  0  8

 U  V  W  X  Y
 0  3  1  6  4
```

Assemble your secret code word

Cardsafe.BAS by T. Pindard

Have you ever had that nightmare where you stand at the cashpoint machine, card to the fore, half the High Street queuing behind you, and your mind a complete blank on the subject of your Personal Identity Number (PIN). If you just had some way of recording your number in a coded form that only you would understand...

Well, thanks to Mr T. Pindard's little program "Cardsafe.bas", you have. The concept is quite simple – you choose a four letter word that you will remember (it is a fact that words are easier to remember than numbers), and the program applies the numbers of your PIN to the consecutive letters of the code word, then embeds that into an alphabet with numbers assigned randomly to the other letters.

The final grid can then be printed out and placed somewhere strategic. Anybody getting hold of your card – even with the grid – will have to know your particular word to be able to work out your PIN, and since there are 300,000 or so combinations of 4 figures (although not all will create words, admittedly), any such malefactor would be facing a task similar to looking for a PIN in a haystack.

In our example, by the way, the PIN is the purely fictitious '8000', (there is nothing in the 8000 Plus team bank account worth having anyway) and the code word (the only rule about these is that no letter can be repeated) is 'PLUS'. Prepare to amaze yourself with your new improved memory!

```
10 DEF FNletter$(i)="  "+CHR$(i+64)                                  0D77
20 OPTION BASE 1:DIM ntable%(25)                                     0EE3
30 PRINT "Do NOT use the PIN as the random number seed!!"            1C8E
40 RANDOMIZE                                                         067A
50 FOR i% = 1 TO 25                                                  0754
60 ntable%(i%)=CINT(9.5*RND)                                         0C2F
70 NEXT i%                                                           04BE
80 GOSUB 200                                                         0542
```

This is where the random numbers are assigned to the letters. Line 80 is where the assigning takes place – not quite random, but close enough.

```
90 FOR i%=1 TO 4                                                     06D5
100 PRINT "letter ";i%;:INPUT;" of key-word ",a$                     16AD
110 a$=UPPER$(a$)                                                    0564
120 INPUT; " is to be digit ",j%:ntable%(ASC(a$)-64)=j%              165D
130 PRINT:NEXT i%                                                    091A
140 GOSUB 200                                                        051F
150 INPUT; "another key-word to put in (y/n)? ",a$                   188C
160 PRINT:IF a$="y" OR a$="Y" THEN GOTO 90                           12EA
170 INPUT; "press 'p' to send cardsafe to printer ";a$               1ADA
180 IF a$="p" OR a$="P" THEN GOSUB 280                               0FAE
190 END                                                              0376
```

This section re-assigns the PIN numbers to your chosen code-word letters.

```
200 PRINT "CARDSAFE"                                                 0949
210 FOR j%=0 TO 4                                                    0742
220 FOR i%=1 TO 5:PRINT FNletter$(i%+5*j%);                          1389
230 NEXT i%:PRINT                                                    08B7
240 FOR i%=1 TO 5:PRINT USING "###";ntable%(i%+5*j%);                15A5
250 NEXT i%:PRINT                                                    08BD
260 PRINT:NEXT j%                                                    0926
270 RETURN                                                           0510
```

Prints the grid to screen

```
280 LPRINT CHR$(15)                                                  0850
290 LPRINT "cardsafe"                                                0A4F
300 FOR j%=0 TO 4                                                    0741
310 FOR i%=1 TO 5:LPRINT FNletter$(i%+5*j%);                         143A
320 NEXT i%:LPRINT                                                   0960
330 FOR i%=1 TO 5:LPRINT USING "###";ntable%(i%+5*j%);               16E2
340 NEXT i%:LPRINT                                                   0966
350 LPRINT:NEXT j%                                                   096B
360 RETURN                                                           050F
370 STOP                                                             045B
```

Sends the grid to the printer.

TYPETEST.BAS by J. Deacon

And finally...are you learning to type? If you are, we would like to venture the suggestion that you are getting fed up with 'The quirky black fox jumped over something or other with a 'z' in it' over and over again? In that case TYPETEST.BAS, written by J. Deacon, is the program that will bring the fun back into your lessons.

It is a game, but it's a game with a serious side. What happens is that after an initial key press (we suggest you use the space bar) the computer will throw you a series of random letters, one at a time. You respond by hitting - or trying to at least - the same letter back at it.

Get it right, and the computer will give you an indication of how long it took you. Get it wrong, on the other hand, and nothing will happen, except that that clock will keep ticking away....

The program is set up to give twenty letters in the sequence, and then give you an average score over the twenty (we reckon that 200-250 is pretty good stuff, under 200 and you're a black belt in typing, and aren't really learning at all).

It is quite easy to change the number of letters by altering the number "20" in lines 30 and (twice) in line 100 to whatever number you want. ●

```
Ok
RUN
Please press a key
y             y             196
z             z             185
x             x             236
c             c             235
s             s             170
c             c             164
d             d             202
l             l             170
k             k             251
f             f             169
i             i             225
i             i             169
q             q             274
n             n             203
y             y             224
x             x             225
e             e             262
r             r             203
y             y             251
k             k             225
Average score over 20 letters:  211
Ok
```

Improve your typing skills with this original 'teach yourself' program

Over to you

The pages of listings which we publish every month are there thanks to your contributions. The 8000 Plus postbag, is found to contain letters and correspondence of all kinds, and the Listings desk claims a healthy share of that load.

However, we're greedy. We want more of your work, and we want it soon. So, get your thinking caps on and start work! As a guideline, your listings should not exceed 120 lines, and there should be no more than 80 characters per line. Save them in ASCII form on an A:drive disc, and send it off to us. One crucial fact point to remember: documentation. With the amount of programs which come our way, we need to have full documentation with every listing you send in. Programs without documentation will not be considered for inclusion in these pages. Send your work to Listings, 8000 Plus, 30 Monmouth Street, Bath. Those which we publish will earn their creators some hard (all right, reasonably tough) cash!

```
10 REM;TYPETEST.BAS P. OLSEN                                    0EFD
20 PRINT "Please press a key";FOR n=-65000! TO 65000!           171E
30 WHILE INKEY$="";NEXT;WEND;RANDOMIZE n                        15A0
40 FOR g= 1 TO 20;x=0                                           07C1
50 y=RND*26;y=INT(y)+97;y$=CHR$(y)                              0FC2
60 PRINT y$,                                                    0530
70 IF INKEY$<>y$ THEN x=x+1; GOTO 70                            112F
80 PRINT y$,x;sc=sc+x                                           0B56
90 NEXT g;t=INT (sc/20)                                         0B53
100 PRINT "Average score over 20 letters: "t                    167D
```

All this in only 10 lines! Notice that the randomisation sequence depends on how long you take to press the key at the start. o

How to type in a listing

The first thing to do is to boot up CP/M, by loading the disc into the machine at turn-on time; when it settles down, type in the word BASIC, and hit return. You will be given a bit of information about Mallard BASIC, and the prompt "Ok". You can now begin to type in the program.

Each line begins with a number. This must be typed in, along with the text that follows it, but not the list of numbers on the right hand side (these are part of a checking procedure we publish from time to time). Make sure that what you type is exactly what is on the page, especially in terms of punctuation. One semi-colon instead of colon may not seem much to you, but it could spell disaster for the program. Be careful, as well, that you differentiate properly between "0" (the number zero) and "O" (the capital "o"), and between "1" (the number 1) and the lower case "L". From such small errors, great crashes flow.

If you do spot an error in a line as you are typing it in, use the cursor keys to go back and amend it. Once you are sure that a line is typed in correctly, then hit the [RETURN] button and go on to the next one. If you subsequently notice a mistake, type edit, followed by the line number and [RETURN], and you will be given a chance to make your correction. Once you have typed in the whole program, check that everything is there as it should be by typing "list" [RETURN]. The whole program will scroll past you. To stop it at any point press [f5], and to restart it press [f5] again.

If all is present and correct, save your program to disc, by typing SAVE followed by the name of the program, which must be in quotation marks. Now comes the moment of truth. Type RUN and press return. If all has gone well, it will work first time.

If not, you may be given error messages, often with a line number attached (which may or may not help – often that can be the line in which an earlier mis-type becomes critical) so that you can rectify the fault. If there is no fault there, or no line number, check the rest of the program with a fine toothcomb.

Don't forget to save the improved version of the program (use the same filename and the old, bugged version will be deleted).

When you want use the program again you must first load BASIC as before, then type: LOAD "filename [RETURN]. It can then be used as before – by typing RUN [RETURN].

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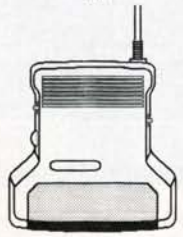

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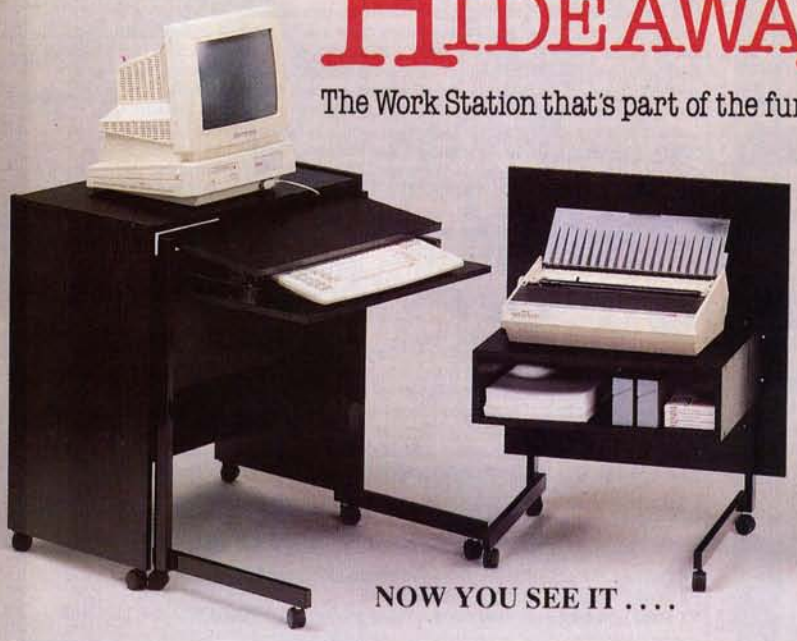

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LANGFORD

A page in the company of David Langford

Language Barriers

One of the most tiresome things that computer owners do is to play the ever-popular game "My Computer's Better Than Yours, So There." You know: my PCW is better than your IBM because it fits more text on the screen, but my IBM is better than your PCW because it's "state of the art" (or rather, it costs more).

Most boring of all are operating system snobs who drone on about the superior virtue of CP/M or MS-DOS — whichever they happen to use. This one-upmanship obscures the interesting fact that if you know the basics of CP/M, you automatically know a fair bit about DOS as well... and vice versa.

Forget the tedious arguments and revel in the knowledge that when confronted with an IBM (which ghastly fate can happen to any of us), you can discover a great deal by remembering elementary CP/M.

If you prefer to ignore the whole issue and use LocoScript for all "file housekeeping" operations/M, you have my sympathy, not to mention permission to skip what follows....

The more things change

In both operating systems, the basic "type something and then press Return" prompt looks like this: A> - carrying the additional message that Drive A is being used. You can change it by entering B: to select drive B. (IBMs often have a hard disc C instead. Challenge to the intellect: what does the command C: do?)

Typing *DIR* displays the directory, although its appearance differs in DOS. (The DOS command *DIR /W*, where /W stands for "Wide format", gives a more CP/M-like look.) Another familiar command, *TYPE FILENAME.DOC*, shows the contents of a "plain ASCII" text file on the screen. CP/M does better here, halting at each full screen with a friendly "Press RETURN to Continue" ... DOS demands either hair-trigger reflexes on the Pause key or, again, a slightly more complicated command.

Deleting files is "sort of the same". The CP/M command is *ERASE* and DOS prefers *DEL*; but as a concession to CP/M visitors, DOS will in fact accept *ERASE*. However, in CP/M we usually abbreviate it to *ERA*, which DOS refuses to recognise. *ERASE *.** remains deadly anywhere.

Certain commands use the same keyword but work "backwards" in DOS. ("You mean they work backwards in CP/M, fool," writes Outraged DOS-ser of Tunbridge Wells.) *REN* or *RENAME* is the obvious one. When I want to pass off an old column on a new editor, I rename it in CP/M with *REN COLUMN.NEW=COLUMN.OLD*. On the DOS machine, the same effect requires *REN COLUMN.OLD COLUMN.NEW*. Challenge to students of relativity: which one is backwards? Perhaps DOS actually makes more sense here; there's something very computer programmer-ish about the CP/M command.

Built-in or not?

I've heard it said that CP/M is better than DOS because many useful commands are built in and don't need program files. I've also been loudly told that DOS is better for the exact same reason. An explanation is needed.

Take *REN*: in each case, it both is and isn't "built in". CP/M does have *REN* built in, since it will all on its own accept a correctly typed *REN THAT=THIS* command. But if you mistype the THIS filename as something non-existent, the program file RENAME.COM is needed to issue the terse error message "No File". Similarly, *DIR* can always be used but needs DIR.COM for the fancier options.

In DOS, the most used commands live in a file called COMMAND.COM which is always loaded ... so they're all built in. However, COMMAND.COM tends to get overwritten when other programs run, whereupon DOS insists on reloading it from disc immediately. You need it around.

(Hardened operating system users on both sides have much the same solution to this recurring need for a .COM file or files: their "start of day" disc copies needed CP/M utilities, or COMMAND.COM, to a memory drive like M:, and uses special commands to tell their operating system where to to look for the needed files.)

The biggest bone of contention is *PIP*. Do you prefer to type *PIP NEWFILE=B:ORIGINAL* or the DOS equivalent *COPY B:ORIGINAL NEWFILE*? DOS fanatics sneer that PIP isn't "built in" even rudimentarily (you always need PIP.COM). CP/M acolytes retort with boasts about the million extra optional things that PIP can do to files while copying them.

Let us rise above sordid bickering, and merely note that this is one difference you do need to remember. Typing PIP in DOS results in the greeting "Bad command or filename", while CP/M reacts to COPY with incredulity: *COPY?*

There's one similarity, though - the "verify" option, which requests that extra care be taken to make an accurate copy. PIP with [V] at the end of the command corresponds to COPY with /V.

And the rest

In both systems, files ending in .COM are programs which can be run by typing the filename without the .COM. (DOS has another flavour of program file that ends in .EXE but is used in exactly the same way.)

CP/M lets you create SUBmit files containing several preset commands: if MYSTUFF.SUB contains your favourite commands, you can issue the whole lot in sequence with the aid of SUBMIT.COM, by typing *SUBMIT MYSTUFF*. Again DOS is eerily similar, with its corresponding BATch files containing "batches" of command lines. You could copy MYSTUFF.SUB directly to MYSTUFF.BAT and use it in DOS by typing *MYSTUFF* (no SUBMIT.COM required) ... although not all the commands in it might actually, as it were, work.

And both systems come with appalling "text editors", ED and EDLIN respectively, which are almost identically unusable!

Here I planned a theological analysis of the parallels between CP/M's division of discs into "groups" and DOS's organisation into "sub-directories", but I see that men in white coats are beginning to hover round.

In the 1970s, someone published a massive tome which "proved" by linguistic analysis that the Hebrew language was the same as Greek. Let's not go that far — but knowing your way around CP/M remains a good basis for coping with the mysterious and pervasive terrors of DOS. ●

Tipoffs

The latest hints, tips and advice!

Fallen out of love with LocoScript? Just can't get on with BASIC? Disenchanted with CP/M? Then take heart: Tipoffs can help you love your PCW with its own Valentine's Day massacre of all those problems you've been up against. There are lovely tips on LocoScript, BASIC, SID, Protext, Stop Press and many more. On February 14th G Doyle of Wolverhampton will be getting a card that'll be no mystery: thirty smackers from us for his tip on easy tables LocoScript.

If you know of any ways to seduce LocoScript, bewitch BASIC or sweet-talk any other desirable program into doing something it wants to but thought it shouldn't, tell us: the best win hard cash. Write to: *Tipoffs, 30 Monmouth St, Bath BA1 2XF*. It's freepost.

BASIC prints

Is it possible to put the output from a BASIC program not only on the printer, but also on screen and also to disc, all with the same run of the program?

Ivan Swan, Norwich, Norfolk

8000 Plus: *Suppose you want to store the output in a file called OUTPUT.1. One way is to use the command* ***put printer output to file output.1****, described in December's Tipoffs. Here's another.*

At the beginning of the listing, put a line

10 OPEN "O",1,"OUTPUT.1"

and at the end put a line

5000 CLOSE

or whatever number is appropriate. Now the three following types of print commands – which may be run concurrently if you wish – have the following effects:

100 PRINT "Hello";a$

prints the word 'Hello' then the value of the string a$ on screen;

110 LPRINT "Hello";a$b

prints the word 'Hello' then the value of the string a$ on printer;

120 PRINT "Hello";a$

prints the word 'Hello' then the value of the string a$ in the file OUTPUT.1.

So, existing BASIC programs will require a bit of tedious modification, but you can get output in three different ways simultaneously.

BASIC questions

I have two problems in BASIC.

1. How can I get BASIC to print on screen foreign characters such as á, é, í, ó, ú, ä, ê, î, õ, ñ, etc?

2. I want some way of choosing at random certain items from an array. Can you give a routine that will choose numbers from a given range at random, choosing them equally without favouring any at the expense of the others?

Robert Hedley, Settle, N Yorks

8000Plus *1. To get these characters on screen, consult page 117-118 of your CP/M manual (page 66 in the 9512 manual) and use the PRINT CHR$ command. For example, the tables on these pages shows that the character â has the code 229, and the character é the character 225. So, the following line in BASIC:*

10 PRINT "I'd like some p";CHR$(229);"t";CHR$(225);" please."

produces on screen

I'd like some pâté please.

2. Have a look at the following routine. It supposes you want to print out at random numbers chosen from 1 to 10 inclusive.

```
1 RANDOMIZE PEEK (64504!)
10 FOR j%=1 TO 1000
20 y=RND
30 x%=y*10
40 IF x%=0 THEN x%=10
50 PRINT x%;
60 NEXT
```

If you add the lines

55 n%(x%)=n%(x%)+1

70 FOR j%=1 TO 10:PRINT j%;n%(j%) : NEXT

then it'll print out how many times each number from 1 to 10 was chosen - in this case each value should be between 90 and 110 or so, showing the distribution is even and fair. Note that line 1 randomises the random number production - without this line, you get the same sequence of random numbers each time; and line 40 ensures that 0 and 10 - which would otherwise produce about 50 0s and 50 10s - will produce instead 100 10s.

Date box

You once published a tip showing how a CP/M program could be set up so that it would automatically insert the date of that day on screen merely by pressing a key such as [f3]. Can you print it again, and can you say if such a thing is possible in LocoScript?

W Hawkes, London N6

8000 Plus: *In both cases you have to set things up manually first; the PCW has a date counter inside it but doesn't 'know' what date it actually is that day by itself – in fact, unless you have a special date interface, it thinks it's 15 December 1982 whenever it starts up!*

In LocoScript you can set it up as a regular phrase. In any document, type the current date. Put the cursor at the beginning of the date, press [COPY], then move to the end and press [CUT]. Give a letter to save the phrase under – D is appropriate – and from then on until you switch off in any document you can just type [PASTE] ***d*** *to get the date inserted.*

In CP/M insert the following lines in your PROFILE.SUB file – note how the semi colon is used to insert comments which are ignored by CP/M but appear on screen to prompt the user:

;Please type the following:

;E 135 "01/02/91" *[RETURN]*

[ALT] Z ;(substituting today's date)

;and from now on pressing [f7] ;inserts the date for you.

PIP DATE.KEY=CON:

SETKEYS DATE.KEY

You'll need PIP.COM and SETKEYS.COM on your startup disc. When you start up, follow the instructions and type ***E 135 "14/02/91"*** *or whatever the date is when prompted. From then on pressing [f7] will insert the date into wherever you are. You can actually enter the date in any format you like, for example* ***14th February 1991****.*

This doesn't work with all CP/M programs (for example, it won't work with Mini Office) but works nicely in BASIC and Masterfile.

Turning tables

Often in LocoScript you want to organise information that has been typed in, or has come in from another package, in the following fashion:

Pupil Age Marks Grade
Baker 12 25 E Major 11 34 D
Hattersley 12 83 A Ashdown 11 75 B

or perhaps

Pupil
Age
Marks
Grade
Baker
12
25
E
Major
11 etc.

into a tabular fashion such as:

Pupil	Age	Marks	Grade
Baker	12	25	E
Major	11	34	D
Hattersley	12	83	A
Ashdown	11	75	B

etc.

The easiest way to do this is as follows. At the point in the document where the table is to start, press [f2] and select 'new layout'. In the ruler line (which you enter by pressing the down cursor in LocoScript 1) set normal left tabs at appropriate positions for the items in the table, but add an extra one at the position of the right-hand margin. (It doesn't show on the ruler line). [EXIT] back to the main document.

Now, at the top of the table text, press [EXCH] and give [SPACE] as the text to find (or [RETURN] if your items are one-to-a-line) and give [TAB] as the text to replace it with. Select 'automatic exchange' and [ENTER].

You see the items being slotted neatly into table form, and that tab at the right margin makes sure new names start on a new line. When you get to the end of the table, press [STOP] twice to stop the exchange process – otherwise any text after the end of the table will be put into tabular format!

Some people may find it easier to type in tables separated by spaces and then convert them to table form as above.

G Doyle, Merry Hill, Wolverhampton

```
↵
Pupil Age Marks Grade↵
↵
Baker 12 25 E Major 11 34 D Hattersley
12 83 A Ashdown 11 75 B Smith 12 64 B
Johnson 12 53 C Wilson 11 37 D Hughes
11
```

Text like this...

```
0/TABLE    .        Editing text.
  1  Pi12   LS1    CR+0    LP6
s    f2=Layout     f3=Style      f4=Size
L.....:.....:.....:.....:.....:.....:.....
 Pupil→          Age→ Marks→Grade↵
 ↵
 Baker→          12→  25→   E→
 Major→          11→  34→   D→
 Hattersley→     12→  83→   A→
 Ashdown→        11→  75→   B→
 Smith→          12→  64→   B→
```

...can be easily put into a neat table by replacing spaces with tabs. The right margin actually has a tab set at that position which doesn't show on the ruler line.

Man and superman

I am making a simple card index type database involving chemical formulae with super- and subscripts. I have File'n'Find but this won't accept super- or subscripts. Can you help?

Don Radford, Bath, Avon

8000 Plus: *I don't know of any CP/M database that can handle superscripts and subscripts. Perhaps your best bet is to invest in LocoFile. It can handle superscripts which can be entered in a card using [SHIFT] [ALT] [f7] (invoking 'symbol' mode) then the number (and then returning to normal with [SHIFT] [ALT] [f1]). The superscript shows on as such screen and will print out in high or draft quality.*

Subscripts you'll have to devise yourself using LocoChar (which comes with LocoScript 2 anyway). Redefine the [EXTRA]-numbers under LocoChar, which come out as ringed numerals, as subscripts – just copy them downwards manually under LocoChar. When you run LocoScript with your redefined character set, [EXTRA]-number will insert a subscript that will show on screen as such and print out in high or draft quality. Full instructions on LocoChar are in the LocoScript 2 manual.

Search me, SID

Users of SID who want to change things in programs often need to search for specific pieces of text or sequences of codes. For example, if you want to change the time LocoScript keeps the motor drive switched on from 5 to 2 seconds – as described in John Eggeling's tip in December – you need to find the sequence 0A 32 AF 1E 0C 0F 03. It is tedious doing this manually in SID, but there is a quicker way.

Before running SID, insert your CP/M master copy (side 3 if you have an 8512 or 8256) and type **put console output to file m:temp** [RETURN].

Then run up SID and read in the file you want to alter. Take a note of the 'MSIZE' figure; suppose it is 5A00. Then type at the # prompt **d0000,5A00** [RETURN] or whatever the figure was you saw under MSIZE. When it's finished, press [STOP] to exit SID and reinsert the CP/M master disc. Type **put console output to console** [RETURN] and then use PIP to copy M:TEMP onto a new disc.

Now, run up LocoScript or Protext as usual and have a look at the file M:TEMP (in LocoScript, by inserting it into a blank file using [f1] or [f7]). Use [FIND] to find the sequence you're looking for and make a note of the address where it starts. Be warned: the file can be very big indeed, around five times as big in K as the program file it came from – which in the case of LocoScript can be nearly 200K.

Now you can run up SID as usual and, knowing the address, make the appropriate subsitution quickly. A bit longwinded, but at least the PCW does the hard work!

P Ottenhof, Amsterdam, Holland

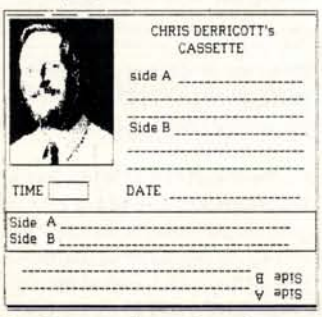
Tape tricks

Cassette labels can be prepared in Stop Press even quicker than the way December's Tipoffs described.

1. Create a window 10cm by 9.5cm (K1)
2. Border it (K3)
3. Draw a horizontal line 2cm from the bottom and another 1.25cm from that (easy, as the window command gives a ruler line in quarter centimetres). These lines form the position for the folds when you put the label in the cassette case.
4. Add whatever details you want, such as a modest self-portrait. Mine was scanned using Masterscan.

PS As an English teacher I worry about the the pluralising of 'tip-off'. Shouldn't it be 'tips-off'?

Chris Derricott, Church Eaton, Stafford



Stop Press can be used to make very smart cassette labels. And even to cultivate personality cults too

8000 Plus: *Yes, so long as incompetent folk make cocks-up, bowlers have runs-up, witty people make puts-down and swindlers make rips-off!*

Paper fax

I want to print onto Filofax size paper in BASIC and CP/M. How is it done?

G Armstrong, London W4

8000 Plus: *Suppose your page length is 7" and that you want a quarter of an inch gap at the top and bottom of each page. At 6 lines per inch (the PCW's normal setting) this translates to 39 lines per page with 3 lines gap in between each.*

Start up CP/M and type DIR [RETURN] to make sure the file PAPER.COM is on the disc. (If not, make a new copy of your CP/M disc using DISCKIT and use that).

The command to set the paper length is ***paper f39,g3,c,d*** *[RETURN] where F stands for form (i.e. page) length, G for gap, C for continuous paper, and D makes sure these settings will be used until you switch off.*

The PCW will confirm the new settings. From now until then, either in BASIC or CP/M, the appropriate paper length will be used.

Top of the form

It's often irritating, when using forms that require printing on right at the top, to find that the PCW printer starts on line 7, one inch down from the top. However, there is a way round this.

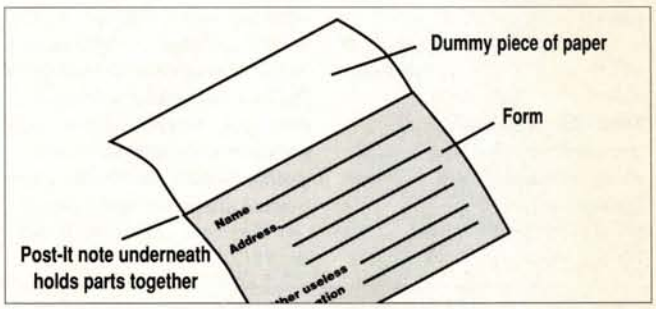
Simply cut the sticky strip from a 'Post-it' note or two and use this to stick a strip of paper to the top of your form, as wide as the form and about two inches long. You now have an extended form that goes into the printer as usual, but can be wound on so that printing will start at just the right place at the very top of the actual form.

If you want to print down to the bottom, you'll also have to adjust the page length and make it about 12 lines longer. In Protext this is just done with a command like >PL 82 (which is 70 plus 12) at the top of the document.

In LocoScript 1, before printing, press [PTR] and then [f1] 'Options'. Cursor down to 'form length' and make it 82. [ENTER] [EXIT] and print out.

In LocoScript 2, set up a new paper type called 'A4+12' as follows. In the disc manager, press [f6] 'Settings' and select 'New paper type'. Give the name ('Paper') as A4+12, make it single sheet, and make the height 82 and width 50, top and bottom gap 0, and [ENTER] and [EXIT] back to the disc manager. Write the new settings to your startup disc. In the document, press [f1] 'Document set up'. Then press [f5] 'page'. In 'paper type' select the A4+12 paper type with [+] [ENTER]; back in 'page layout' amend header to 0 and 'top gap' to 0. [EXIT] back to the document.

David Argent, East Barnet, Herts



A bit of ingenuity can help you print right to the top of a piece of paper if you need to do so - when filling in forms, for example

Copy rights

What copyright status does my book have if it's only on disc and hasn't been printed out yet?

Ms F Pardoe, Swansea, Glamorgan

8000 Plus: *The same as if it were printout. British Copyright law protects anything the moment it is written, and you don't have to put '© 1991' or send money or register anywhere. Your only problem would be to prove that your disc had indeed predated someone else's work if they copied your stuff; you could deposit the disc with your solicitor or in a bank, or just post it to yourself in a well sealed package and use the postmark as proof of its age – though you'd only be able to open it once, of course! The Writers and Artists Yearbook, available from any good bookshop, has a section on copyright.*

Three's a crowd

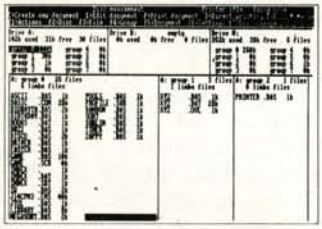
Three questions.
1. Can you recommend a COBOL program for a home study course?
2. When I try to make a backup copy of Matchday II, the football program, I get an error message. How can I get round this?
3. Can fonts from The Desktop Publisher be loaded into Micro Design II?

Andrew White, Wimborne, Dorset

8000 Plus: *1. The only COBOL program I've heard of is Nevada Cobol, available for £33.95 from Advantage of 56 Bath Road, Cheltenham GL53 7HJ, tel: 0242 224340.*
2. You can't, unless you are the sort of person that can write your own formatting routines in assembler. Many games are specially designed so it can't be copied to ensure you don't go round flogging illegal copies off in Glasgow markets. Irritating isn't it? Carry on using the original and if it packs in, send it to the software company and demand a replacement.
3. No. Anyway, DTP's fonts look like they were designed by Lego and go jagged and steppy when used large, so would look wrong in Micro Design.

List rhapsody

LocoScript users with 8256s or 8512s can produce a smart list of what a disc contains by inserting the disc in LocoScript's disc manager and getting a list on screen of the contents, inserting paper in the printer, and pressing [EXTRA] [PTR]. The screen image is printed out and can be trimmed to fit a disc box.



LocoScript can help give you a listing of the files on any disc

The same trick works for any disc: your MicroDesign data discs, BASIC discs and so on can have contents produced in the same way. It's better than doing it in CP/M because you get all the file sizes and all groups displayed at once.

P Watson, Sunderland, Tyne & Wear

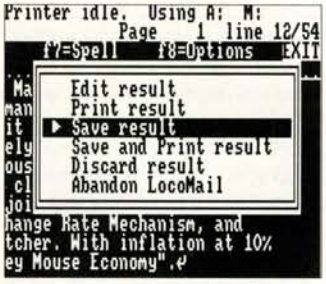
Student prints?

I am a student about to buy a PCW. Would you recommend an 8256, 8512 or 9512 for my purposes?

Denise Fisher, Leicester, W Midlands

8000 Plus: *It depends on what you want to do. You won't go far wrong with any of them, but here are a few guidelines:*
If you need Cyrillic, Greek, maths symbols etc in your work, don't get the 9512. (Its daisywheel printer can't handle them).
If you are going to produce very long documents (PhDs or dissertations) avoid the 8256. (It can only handle 173K discs, meaning a lot of tedious swapping). If quality of textual output is important to you (eg for PhDs, dissertations, job applications) get a 9512 (its daisywheel produces electric typewriter-quality output), and finally, if you want to produce graphs, simple line diagrams, charts etc. avoid the 9512. (See 1).

Filling station



Use 'Fill' and you can leave a document by saving it under another name – thus using the original as a TEMPLATE.STD.

LocoScript – unlike most word processors – has no command to let you edit an existing document and save it under another name, leaving the old version intact.

However, LocoMail owners can simulate this. With the cursor over the file to be edited and saved as something else, just press F for 'Fill' instead of E for 'edit'. When you exit it, 'save result' nd you can give a new name and store the document in any group you like; the original is left intact.

In this way, any document can be used as if it were a TEMPLATE.STD.

Ian Chisnall, Bolton, Lancs

Second hand info

I have the opportunity to buy a second hand PCW. What points should I look for?

Wally Smith, Brighton, Sussex

8000 Plus: *Test the keyboard – usually the first thing to go. Does it feel 'spongy', and do the keys need thumping to work? If so, look elsewhere. Repairs can be costly and troublesome.*

Next do a test print. Check all the letters are coming out printed properly, especially if it's a dot matrix printer. If the tops or bottoms of letters like h and p aren't showing, or if there are white lines going across the text, look elsewhere.

The printer pins need work which is also costly and troublesome. Of course, if it's just consistently faint print, that's no problem – it needs a new ribbon, and you can expect to have to replace that anyway.

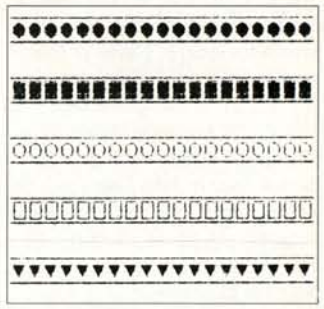
Depending on condition, expect to pay something like £250-400 for a PCW less than a year old; £150-250 if 1-3 years old; £100-£150 if older.

Border country

The following horizontal borders can be very effectively used in LocoScript 2. All you do is enter the following codes:
First line: [+] **lp8** [ENTER] [+] **ls 1/2** [ENTER] then some hyphens; end that line of hyphens with [+] **ls 0** [ENTER] and [RETURN].
Second line: [+] **p 17** [ENTER] [SPACE] [-] **p** then a line of hyphens, one fewer than in the first line. End with [+] **ls 1/2** [ENTER] [RETURN].
Third line: [+] **ul** then any symbols you like. Good ones can be found in LocoScript 2's 'super shift' symbol set in [SHIFT] [ALT] [f7]. Consult the manual. End the line with [-] **ul** [RETURN].

Yann Portier, Favieres, France

This looks a bit cluttered...



...but it prints out as a smart border, just like the ones at the top here. The others are done similary with different fill-in symbols.

Bubble trouble

I have a PCW 8256 and a Canon bubble jet printer. It works fine with Stop Press, but how can I use it to print out in LocoScript 1 or 2?

J Coyne, Wigan, Lancs

8000 Plus: *LocoScript 2 is easy. Just buy the 'printer support' pack from Locomotive (0306 740606) for £29.95 which runs LocoScript 2 with virtually any printer in the world quite easily.*

In the particular case of the Canon bubble jet, note that you won't be able to print out Loco 2's Cyrillic/Greek/maths characters for technical reasons, and that the Canon was not built to produce italics!

Using LocoScript 1 with different printers is a problem. You can do it by saving the LocoScript file as ASCII called say FILE.ASC losing all italics, bold commands, accents, fancy symbols etc.) and then going into CP/M and issuing a command like ***PIP CEN:= A:FILE.ASC****. But it's much easier to upgrade to LocoScript 2.*

Big pipsqueak

While working with CP/M you often want to write short text files – PROFILE.SUB files for example. The quickest way to do this is with PIP.COM.

Suppose you want a PROFILE.SUB consisting of two lines: SETKEYS PROG.KEY and then PROG. You can just type **pip profile.sub=con:** [RETURN] and then type in **setkeys prog.key** [RETURN] [ALT] **j** followed by **prog** [RETURN] [ALT] **j.** Finish with [ALT] **z.**

Note that [RETURN]s should be followed by [ALT] **j** or else your cursor stays on the same line.

To correct an error, use the [CAN] key which moves the cursor backwards along the line. You can then overwrite the error.

M Jones, Manchester

EI SID

In last month's Tipoffs you mentioned SID and said it could be used to 'customise' the text messages in any program to those of your choice. Can you explain how it's done?

F Howe, Preston, Lancs

8000 Plus: *The idea is that you can use SID.COM, which you already have on your master discs, to overwrite the part of any given program that holds a text message, with a text message of your own. The new message must be the same length as the one replaced.*

Always, always work with an expendable copy of the program you're fiddling about with, not an original. Mistakes in SID are easy to make and can be irreversible.

The general procedure is as follows:

A. Find the name of the file you want to change. (Usually this will be a .COM file with the name you usually type to run the program: for example, BASIC would be BASIC.COM, SuperCalc SC2.COM, Mini Office OFFICE.COM and so on. For self-starting discs like CP/M and LocoScript it is an .EMS file)

B. Run SID.

C. Insert the disc with the file to change on, and read it into SID.

D. Scan through the file until you find the text message you want to change.

E. Change it to your new desired message using SID's substitute command.

F. Save the new file and leave SID.

G. Run your amended program disc. The text message should now be the one you put in.

Here's an example. Suppose you always use LocoScript for writing letters and get fed up of changing DOCUMENT.000 to LETTER.034 all the time. Here is how to do that: your amended LocoScript will offer LETTER.000 instead of DOCUMENT.000 when you create a file, and subsequently LETTER.001, LETTER.002 and so on. First take a copy of your LocoScript master disc.

A. To find the name of the file you need to change, switch on your PCW and run up CP/M. At the A> insert your LocoScript copy disc and type ***dir*** *[RETURN] then* ***dirsys*** *[RETURN]. Somewhere in the list of files there will be one called J(number)LOCO.EMS – make a note of precisely what it is.*

B. Now insert side 3 of your CP/M discs (or side 2 if you have a 9512) type ***sid*** *[RETURN] and wait for the # to appear.*

C. Insert your LocoScript copy disc in the A drive and type ***ra:j(number)loco.ems*** *[RETURN], where (number) is the one you noted down in stage A. Make a note of the figure given under MSIZE in SID's opening message. Let's say it is a100.*

D. Type ***d0000,a100*** *[RETURN] – or whatever other number you noted under MSIZE. You'll see three columns winding up the screen; the one on the left is a sort of index to show you exactly where you are in the program; the one in the middle is machne code, the guts of the program itself; the one on the right is the text version of each code. Most of the codes can't be printed or just comes up as gobbledegook, but text shows as text in the right column, so keep your eyes on that one for the message you want to change – in this case, the word DOCUMENT. If you want to stop the listing temporarily, press [f5]; to restart, press [f3]. If it never shows, then either you've missed the message or it isn't in that file.*

When you see the message, press [STOP] once to get the # back. (In LocoScript 1 it's around 1700; in 2.16 at around 7e40; in 2.28 at around 6270).

E. Now you've got to work out exactly where the message starts – i.e. the 'index' of the D for DOCUMENT. In the right column, count how many positions across from the left of that column it is. Count across the same number in the middle column and make a note of the code you land on; you should be on the code for the D (which is 44). You must count 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, but then A, B, C, D, E and finally F. If the text starts in the rightmost column of line 53a0, for example, it would be 53af; if the one before that, 53ae; and so on.

At the #, type ***s*** *followed immediately by this number; so in LocoScript 1 you'd type* ***s174e****; in version 2.16,* ***s7e4f****; in version 2.28,* ***s6279*** *and so on. End with [RETURN].*

You should see SID reply with the number and a code – the same code that starts the message (i.e. in this case 44). Now type ***"*** *followed by the text to replace the existing message with and* ***make sure it is exactly the same length as the message it replaces*** *– so here type* ***"LETTER*** *then TWO spaces. Finish with [RETURN].*

SID replies with another code; press a full stop to show your message is finished and another [RETURN].

F. The # returns; now type ***wa:j(number)loco.ems*** *[RETURN], where (number) is the same one as you typed at the start.*

G. Leave SID by pressing [STOP]. Now use the amended disc as usual, and the replacement you made should be effective.

The general principle works for all programs, but be prepared for some odd results occasionally! Strictly what you've done is against the copyright agreement, but in practice software writers are quite happy about (and sometimes encourage) harmless fun like this. If however you started replacing their copyright message with your own name, and flogged their software as your own on the back streets of Hong Kong, then they'd quickly get the lawyers in!

```
A>dir
A: MATRIZ  CH  : MATRIZ  RO  : LOCOSPEL JOY : SETTINGS STD : PHRASES  STD
A: DIAGRAMS LS  : SHOW    BAS
SYSTEM FILE(S) EXIST
A>dirsys
A: DISCMAN  JOY : J216LOCO EMS : SCRIPT   JOY : KEYBOARD JOY : LOCOMAIL JOY
A: MATRIX   PRI
NON-SYSTEM FILE(S) EXIST
A>sid
CP/M 3 SID - Version 3.0
#ra:j216loco.ems
NEXT MSZE  PC  END
A100 A100 0100 DAFF
#d0000,a100
0000: C3 03 FC 00 00 C3 00 DB 00 00 00 00 00 00 00 00 ................
0010: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
0020: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
0030: C3 86 E1 00 00 00 00 00 C3 A1 FD 00 00 00 00 00 ................
0040: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
0050: 01 00 00 00 00 00 00 00 00 00 00 00 00 00 20 20 ..............
0060: 20 20 20 20 20 20 20 20 00 00 00 00 9A 9B 9C 9D          ........
0070: 9E 9F 00 01 00 00 00 00 00 00 00 00 00 00 00 00
```

Having found the name of the file to load into SID – in this case, J216LOCO.EMS – you can run SID, load up that file, and start looking for the text to change with that d0000,a100 command: the a100 is the figure you noted under MSIZE...

```
7E20: C1 C9 3D 17 9F E6 80 C6 3E 47 4E CD BB 03 23 7E ..=.....>GN...#~
7E30: B7 C8 FE 9D 20 F4 C9 E5 60 C6 80 9F E6 80 C6 3E .... ...`......>
7E40: 47 0E 20 24 18 03 CD BB 03 25 20 FA E1 C9 00 44 G. $.....% ....D
7E50: 4F 43 55 4D 45 4E 54 30 30 30 00 00 54 45 4D 50 OCUMENT000..TEMP
7E60: 4C 41 54 45 53 54 44 0C 00 50 48 52 41 53 45 53 LATESTD..PHRASES
7E70: 20 53 54 44 0C 00 21 4D 41 49 4C 20 20 20 50 52  STD..!MAIL   PR
7E80: D4 00 00 4C 4F 43 4F 53 50 45 4C 44 43 54 00 00 ...LOCOSPELDCT..
7E90: 55 53 45 52 53 50 45 4C 44 43 54 00 00 55 53 45 USERSPELDCT..USE
7EA0: 52 53 50 45 4C 24 24 24 00 00 53 45 54 54 49 4E RSPEL$$$..SETTIN
7EB0: 47 53 53 54 44 0C 00 21 45 53 59 53 54 45 4D 24 GSSTD..!ESYSTEM$
7EC0: 24 A4 0C 00 21 4D 53 59 53 54 45 4D 24 24 A4 0C $...!MSYSTEM$$..
7ED0: 00 21 44 53 59 53 54 45 4D 24 24 A4 0C 00 21 53 .!DSYSTEM$$...!S
7EE0: 53 59 53 54 45 4D 24 24 A4 0C 00 21 42 53 59 53 SYSTEM$$...!BSYS
#s7e4f
7E4F 44 "LETTER
7E57 30 .
#wa:j216loco.ems
```

...aha! There it is, DOCUMENT.000. The address it starts at is 7e4f here, so you substitute the text LETTER [SPACE] [SPACE] for it, save the file...

...and when you run LocoScript next time, instead of DOCUMENT.000 in new file names you get LETTER.000.

Opposing words

We often read that Protext is much faster than LocoScript. Why is this? And why hasn't LocoScript been fitted with a word counter yet?

M Hall, Bristol, Avon

8000 Plus: *LocoScript constantly checks that the document you're working on is correctly formatted, and this foolproofing comes at the expense of a few extra seconds per document. Protext doesn't, so that for example if you add text to an existing paragraph, the formatting is destroyed and must be reset manually – but gains drastically in speed. Basically, if all you want to do is get text on disc quickly (for your publishers to typeset from, for example) you'd want Protext; if all you want is to produce smart looking documents (business letters, for example) you'd want LocoScript. In between and you'll have to decide for yourself!*

LocoScript is unlikely to be fitted with a word counter (apart from the one in LocoSpell) for various technical reasons; it would involve fundamental rewriting of the program.

Direct layouts

Is there a way of storing layouts for direct printing in LocoScript? I use direct printing for envelopes, and find it annoying that I have to set the margins and print size each time!

R Goodyear, Chelmsford, Essex

8000 Plus: *No.*

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Half crown King

It can be annoying for us less-than-perfect touch typists to find that single and double quote marks – which require a [SHIFT] key to insert them – often come out in runs of lower case text with the "halfcrown effect" (that's 2 and 6, for readers under 30). Results like *it6s* and *Beethoven6s "Eroica2 Symphony* are too easily missed on screen, and are not picked out by spell checkers.

However, Protext users have a way round this. You can configure the § and # keys to produce ' and " respectively, meaning you can easily enter quote marks without jumping for the [SHIFT] key and without risk of that halfcrown effect. This is what to do.

In Protext's command mode with your Protext startup disc in the A drive type **config** [RETURN]. (If you haven't got CONFIG.COM on the disc, copy it onto your startup disc). After a bit the menu comes up; press **5** for 'Set keys for PCW'.

Now, the codes for the § and # keys are 28 and 19 respectively. So:

1. Type **28** [RETURN]. You now see a table displaying the characters returned by the § key in columns headed N, S, E, A and AS – respectively normal, with [SHIFT], with [EXTRA], with [ALT] and with [SHIFT] [ALT]. At the moment the § key returns § normally, < with [SHIFT], and « with [EXTRA].
2. Cursor over to the A column and type **§**. Cursor back to the S column and type **'**.
3. Press [STOP] to finish editing that character, then **19** to edit the # key.
4. Cursor to the A column and type **#**. Cursor back to the S column and type **"**.
5. Press [STOP] twice to finish editing characters, then **9** to save the new configuration file to your Protext startup disc, then **0** to return to Protext.

Now every time you run Protext from this disc, § and # respectively will return ' and " – much easier for rapid typing! If you want to get § press [ALT] § and similarly for # press [ALT] **#**. To get the 'paragraph' functions use [SHIFT] [ALT] – i.e. [SHIFT] [ALT] § moves to the start of the current paragraph and [SHIFT] [ALT] # to the next.

If you want to remark the keytops, Tippex and a permanent felt tip should do the trick. A similar procedure can be followed to set any keys to act as any other keys, e.g. to set a French (AZERTY etc.) or Dvorak (;,.PYF etc.) pattern keyboard instead of QWERTY etc.

Basil Pigg, Bath, Avon

New address

With reference to John Eggeling's tip in December about changing the time LocoScript keeps the disc motor drive going, the address to change in LocoScript 2.28 is 4109.

Roger Ward, London SW6

Open and shut case

One good way of storing discs is in those clear plastic cases. By gluing four together with modeller's styrene adhesive you can keep a block of them together – say your LocoScript startup and data discs. The block opens up at any place easily and the discs store flat so the titles can be easily read.

Dave Bailes, Stroud, Gloucs

Style counsel

Here's a guide to the different styles available under LocoScript on a PCW8256 or 8512 printer. Use half spacing for superscripts.

Mrs H Fairbairn, Liverpool

JACKDAWS LOVE MY BIG SPHINX
jackdaws love my big sphinx
pitch 17

JACKDAWS LOVE
jackdaws love
pitch 17 double (=pitch 8½)

JACKDAWS LOVE MY BIG SPHINX
jackdaws love my big sphinx
pitch 17 superscript

JACKDAWS LOVE MY BIG SPH
jackdaws love my big sph
pitch 15

JACKDAWS LOV
jackdaws lov
pitch 15 double (=pitch 7½)

JACKDAWS LOVE MY BIG SPH
jackdaws love my big sph
pitch 15 superscript

JACKDAWS LOVE MY BIC
jackdaws love my big
pitch PS (= pitch 12ish)

JACKDAWS L
jackdaws l
pitch PS double (=pitch 6ish)

JACKDAWS LOVE MY BIG
jackdaws love my big
pitch PS (=pitch 12 ish) superscript

JACKDAWS LOVE MY BI
jackdaws love my bi
pitch 12

JACKDAWS I
jackdaws j
pitch 12 double (=pitch 6)

JACKDAWS LOVE MY BI
jackdaws love my bi
pitch 12 superscript

JACKDAWS LOVE MY
jackdaws love my
pitch 10

JACKDAWS
jackdaws
pitch 10 double (=pitch 5)

JACKDAWS LOVE MY
jackdaws love my
pitch 10 superscript

Face the music

I've heard of an add-on for the PCW which enables it to play music. Where can I get it?

Mary Ward, Ipswich, Suffolk

8000 Plus: *The add-on was called the DK'tronics Joystick Controller and Sound Synthesiser. Unfortunately it is no longer available, so your only option is to invest in a MIDI interface and hook up your PCW to a synthesiser – the process was described in detail in 8000 Plus August 1989, p26.*

Phrase it right

If you have set up complex phrases in Protext it can be irritating when you actually want the characters normally produced by [EXTRA] and the letters. What you want is a quick way of resetting the phrases to normal. Leaving Protext and re-entering doesn't work – the phrases are saved on exit and reset on re-entering. But you don't have to reset the machine!

First, save and clear any documents on screen. Leave Protext with **q** [RETURN] and in CP/M just type **era protext.V** [RETURN]. Then go back into Protext with **protext** [RETURN]. The phrases have been cancelled and you can enter those squiggly characters with [EXTRA]. Then reassign your phrase set and carry on.

D Harris, London SE23

Bail out

When reloading the printer on the PCWwith a different sort of paper in LocoScript so that the printer sign is flashing and you then select a new paper type, you don't have to pull the bail bar forward and rewind to the beginning (as advised in the article "Print Works", December, p21).

All you do is to press [PTR] then [f1] 'Actions'. Resume printing is already highlighted so press [ENTER] then [EXIT] to leave the printer screen.

The printer bursts back into life and does its famous impression of a Gatling Gun.

Do I win the $64,000 prize that was mentioned in the original article?

John Revell, Cavendish, Suffolk

8000 Plus: *Er, yes, well, sort of. The prize up for grabs is actually $64,000 worth of unsold copies of* The European.

Character building

Is it possible to put LocoScript's 'funny characters' – Cyrillic, Greek etc. – in headings in LocoFile? They go OK into the items themselves but I can't get them into headings!

Mary Ward, Ipswich, Suffolk

8000 Plus: *Not at the moment, but Locomotive are working on the problem and soon a version of LocoFile will have this facility.*

Arnor's 1991 PCW Software Sale

PROTEXT ... The Word Processor

Protext is firmly established as the alternative to Locoscript.

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... The Book

This is an independently produced book about Protext, written by Rob Ainsley.

The book features a large section of tips for easy reference and is well illustrated with screen shots and printouts.

It also includes a section written to help the Locoscript user to 'convert' quickly to Protext.

It is an essential purchase for any current or potential Protext user whatever their word processing experience.

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* Editor is program mode of Protext (as for C) *

"*Maxam II - now the best gets even better*" CWTA CPC

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"*The thing that struck me ... was the amount of thought and effort that has gone into this product*" CWTA CPC

"*Maxam II is stunning ... the most complete and competent programming package around. Simple, speedy and sophisticated*" AMSTRAD ACTION

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Protext has been designed as a PC program, not as an imitation of a PCW program and thus complements other PC software much better than Locoscript PC.

Features include justification and centring of any mixture of different printing fonts, including proportional; extensive language support including Eastern European languages; multiple file editing; split screen editing; index and contents; footnotes and newspaper column printing.

For further details please contact Arnor. Protext 5.0 is available for IBM PC and compatibles, Amiga, Atari ST and Acorn Archimedes.

All programs run on PCW8256/8512, 9512, CPC6128

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THE GOOD Software FILE

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word Processors (including Desk Top Publishers), Accounts/Payroll packages and Utilities. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a ▲ by them, Minuses a ▼. Those we think are particularly noteworthy have a corner flash.

Have fun window shopping!

WORD PROCESSORS

PROTEXT/POCKET PROTEXT

POWERFUL

£59.95/£29.95 • Arnor
0733 68909

The best CP/M wordprocessor. Very fast at moving around large files, and packed with features. Works with key combinations rather than menus, but uses LocoScript keys too. Comes complete with a good spelling checker, a lightning fast word counter and a very powerful mailmerger. 'Pocket Protext' is a stripped down version – essentially the same word processing features, but no spell checker or mailmerger, and lacking one or two incidental facilities like two column printing. Specify which machine you have when buying.

PLUSES • MINUSES

- ▲ Complete with spelling checker/word counter
- ▲ Packed with features, eg. calculate facility, text editor for writing programs, 'print to screen' option etc.
- ▲ Lets you work with two documents at once
- ▲ You can do all of CP/M's functions without leaving Protext
- ▲ Very fast at moving around, doing exchanges and so on
- ▲ Extremely powerful and flexible mailmerger
- ▼ Forces you to learn another new set of control keys to use it
- ▼ Not as slick as LocoScript in its printer controls

TASWORD 8000

£24.95 • Tasman • 0532 438301 • 8000's only

Simplifies document planning by minimising dependency on layout procedures. Allows quick and easy access to parts of text by existence of a marker system. The 'Search' and 'Find/Replace' facilities are simple to use, but very thorough.

PLUSES • MINUSES

- ▲ Easy to use
- ▲ Excellent mailmerge and label-printing ability

EASY LABELLER

£29.95 (plus VAT) • M.A.S.S. • 0603 630768

Labelling program which stores your names and address list and will print out in label format selected items from it.

PLUSES • MINUSES

- ▲ Useful options like printing out current date
- ▲ Good search facilities
- ▲ Range of printing options will fit most stationery
- ▼ Data needs an entire disc to itself
- ▼ Data entry is slowed by constant returning to main menu

LOCOSCRIPT 2

GOOD VALUE

£29.95 • Locomotive Software
0306 740606

As bundled with new 9512, the new version of everyone's first word processor. If you know how LocoScript 1 works, you'll have minimal relearning to do, and it puts right (almost) all the defects of the old version at a rock bottom price. Greek and Cyrillic alphabets, and even lets you define up to sixteen characters of your own design.

PLUSES • MINUSES

- ▲ 'Find page' command makes moving around faster
- ▲ Superb range of foreign accents and symbols available
- ▲ Can now drive daisywheel and other printers
- ▲ Has DISCKIT's formatting and copying built into it
- ▲ New 300-page manual
- ▼ Mailmerger and spelling checker not included
- ▼ Inconvenient for regular CP/M users
- ▼ Still no word counter!
- ▼ Still slow at Find, Exchange and scrolling

LOCOSPELL

£19.95 • Locomotive/Amsoft • 0306 740606

The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction. Reasonably fast, given LocoScript's inherent sloth.

PLUSES • MINUSES

- ▲ Runs totally from within LocoScript
- ▲ Can do small sections of a file
- ▲ Suggests alternatives for misspelt words
- ▲ Reformats the text as it makes corrections
- ▲ Provides the much-missed LocoScript word counter
- ▼ Can't remove spellings you don't like
- ▼ The manual gets bogged down sometimes
- ▼ Slow at scrolling the dictionary window

LOCOMAIL

USEFUL

£29.95 • Locomotive/Amsoft
0306 740606

As a mailmerger for LocoScript, it's difficult to see how anything could be better than this. It runs directly from LocoScript, and can process any LocoScript commands. Has many advanced features and is highly recommended for all LocoScript users.

PLUSES • MINUSES

- ▲ You don't have to run it from CP/M
- ▲ Can print any LocoScript text formatting commands
- ▲ Can automatically rejustify paragraphs after insertion
- ▲ Can insert numeric calculations into letters
- ▲ Can read data from non-LocoScript (ie. ASCII) files
- ▲ Large manual, with example files on disc
- ▲ Poweful selection procedures – like a database
- ▼ Need separate program to sort and filter addresses before a print run

PROSPELL

£29.95 • Arnor • 0733 68909

A stand-alone spell checker for use with almost any wordprocessor that runs on the PCWs. Reads LocoScript, WordStar and ASCII files, and allows you to make corrections directly, view the context, change the dictionary etc. Specify which machine when buying.

PLUSES • MINUSES

- ▲ Checks LocoScript and WordStar documents directly.
- ▲ Displays the context of a suspect word
- ▲ Can edit misspellings directly from Prospell
- ▲ Anagram and crossword solvers too
- ▼ Processes files of 15K or more in sections

POCKET WORDSTAR

£49.95 • MicroPro/Davis Rubin • 0386 853610

For many business users, word processing means Word Star. Almost everything you could need in a text processor is here and despite the title this "Pocket" version has all the features of the original. Efficient and proven, but now showing its age and there are alternatives unless you are committed to WordStar already. £20 extra buys the De Luxe version with spell checker.

PLUSES • MINUSES

- ▲ Probably the world's most widely used word-processor
- ▲ Documentation is complex but well-structured
- ▲ Includes a mail merge utility
- ▲ Keystroke commands fully described on on-screen menus
- ▼ Doesn't make full use of the PCW keyboard and printer
- ▼ Page and margin formatting commands awkward to use

NEWWORD

£69.00 • NewStar Software • 0245 265017

NewWord exploits the WordStar market by doing the same job better. It uses much the same key commands as WordStar and will even edit documents prepared under WordStarComes with a spelling checker, and the on-screen help is slightly better than WordStar's, though the keystokes are still as obscure

PLUSES • MINUSES

- ▲ Does everything WordStar does, even reads WordStar files
- ▲ Spelling checker included
- ▲ Can un-erase words and lines
- ▲ Onscreen help better than WordStar's
- ▲ Full reformatting of text within mailmerger
- ▼ Weak on use of keypad and printer support
- ▼ Like WordStar, formatting troubles and obscure commands

LABEL PRINTER

£25.00 • Microdraw • 0622 685481

Very similar program to Easy Labeller if not quite as powerful. Usual features of a labeller and you can store comments with each label's data.

PLUSES • MINUSES

- ▲ Menus simple – easy to get the program going
- ▲ Fast data entry
- ▲ Can store comments with each entry
- ▼ No import or export of data
- ▼ Data needs an entire disc to itself

LOCOKEY

£14.95 • Locomotive Software • 0306 740606

This successor to LocoChar is a keyboard customiser which means that any key can be made to produce any letter. The program will reproduce any one of the sixteen LocoChar-defined characters.

PLUSES • MINUSES

- ▲ Enables customisation to any distribution of keyboard letters
- ▲ Handles any combinations of accent and character

▲ Is fun and easy to use
▼ Will only be of limited use

ANSIBLEINDEX PLUS
£34.95 • Ansible Information • 0672 62576

The upgraded version of the LocoScript document indexer. Type in your LocoScript document as normal highlighting the words to be indexed with a LocoScript (+RV) code. The program will then compile an alphabetical list of entries complete with the page number on which they appear. A friendly, useful little package.

PLUSES • MINUSES
▲ Don't need to convert files into ASCII files
▲ Word counter also included
▲ Runs with both LocoScript 1 and 2
▲ One index can be created for a series of documents
▲ Indexes can be edited on screen
▲ Index entries can be inverted; instead of 'mutton pie,' for example, 'pie, mutton.'

ACCOUNTS

VITAL PROCESSOR SERIES
£29.95 – 39.95 each • Vital Software • 0732 810330

EASY TO USE

Series of three programs designed to help you look after your money and your assets. The Savings Processor is ideal for someone with a portfolio of stocks and shares; it tells you your 'net worth' like a balance sheet. The Insurance Processor helps you make an inventory of allyour possessions and put a value on them, while the Income Processor helps you keep tabs on your incomings and outgoings.

PLUSES • MINUSES
▲ Income Processor allows you to budget efficiently
▲ Insurance Processor can complete inventories room by room
▲ Savings Processor is a fast and efficient way of keeping track of share values
▼ You have to be keen to do all the research
▼ It can be time-consuming
▼ With the Income Processor, it's difficult getting all the information you need from the manual
▼ It's not always clear how some of the operations work

CHECK ACCOUNT II
£14.95 • Molesoft • 03722 75053

Written specifically for the home user, this program maintains four accounts per disc in familiar bank-statement form. Its analysis feature shows trends and forecasts how much you can afford to spend. The interest-estimating feature can keep track of Building Society accounts where interest earned varies with the amount deposited.

PLUSES • MINUSES
▲ Designed solely for home accounts
▲ Easy to learn from demo file
▼ Relatively slow screen update
▼ You have to be organised to keep it up to date

DIGITA BUSINESS CONTROLLER
£69.95 • Digita International 0395 270273

EASY TO USE

Not a full accounting system, but a very easy-to-use package with an excellent manual. Nominal ledger already set up and you can be up and running in minutes. No aged creditor/debtor lists can be produced, and problems with VAT handling– not really for VAT businesses. For other small business it's very good value.

PLUSES • MINUSES
▲ Delight to use with a very good manual
▲ You can get the system working in minutes
▲ Financial ratios can be included in reports
▼ No facility for producing aged debtors/creditors list

BOOK-KEEPING AND ACCOUNTS
£69 (with invoicing, £80.50; with invoicing and stocks, £92) • Manx Tapes • 0624 813071

Recently updated suite of programs advocating a very traditional style of double-entry book-keeping. Useful demonstration disc also supplied with more than 200 example accounts.

PLUSES • MINUSES
▲ Solid, traditional approach to double-entry book-keeping
▼ Program doesn't make full use of the PCW
▼ Screen prompts not always that helpful
▼ Written in BASIC, so prone to sluggishness

COMPACT ACCOUNTS
£199.00 • Compact Software Ltd • 0628 777456

Another very large integrated package supplied on several discs and consisting of sales, purchase and nominal ledger together with invoicing. The package is available on much larger micros, and since the format in which data is produced is the same as on PCWs, the system is particularly suitable for users planning to upgrade their hardware at alater date.

PLUSES • MINUSES
▲ Audit trails are an auditor's dream
▲ Data can be used in WordStar, Multiplan or SuperCalc 2
▲ Superb prepayment facility
▲ Can run a number of companies separately
▲ Easily transported to bigger computers
▼ Lots of disc swapping necessary
▼ Can be slow to use – it runs in Mallard Basic
▼ Quirks in cash allocation routine and account code system

M.A.P. INTEGRATED ACCOUNTS
£249+VAT • MAP Systems 061 624 5662/3

POWERFUL

This is a very powerful package moved onto the PCW at a fraction of its cost on larger micros. The size makes it a little cumbersome to use, but apart from that there are very few significant problems. The integrated suite includes the same five modules as Camsoft, but they are supplied on four sides of disc, making it effectively impossible for the software to be run as an integrated system on an unexpanded 8256.

PLUSES • MINUSES
▲ A very comprehensive and professional package
▲ Very good audit trails
▲ Sales/purchase ledgers can run over different periods
▲ Facility for handling prepayments and accruals
▲ Able to print full management accounts
▼ The size of the programs means lots of disc swapping
▼ All normal responses need to be in upper case

SIMPLE ACCOUNTS II
£69.95 • Cornix • 0234 219969

The perfect accounts package for the small business by virtue of its simplicity of operation, and the limitation of its features to the essentials. Features include a useful cross-reference facility to collate expenses on individual contracts. Very comprehensive VAT section.

PLUSES • MINUSES
▲ Simple, easy-to-use program
▲ Can correct errors
▲ Keeps track of debtors and creditors
▲ Well-written manual
▲ Useful search facility

CAMSOFT PSIL
£180.14+VAT • Cambrian Software 0766 831878

Consists of five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. In terms of sophistication it falls somewhere between the Sagesoft package and the larger systems from MAP and Compact. But it's easier to run than the larger packages since all the softwarecan be squeezed into the M drive. Good package for a small company.

PLUSES • MINUSES
▲ Already set up for 8256 or 8512
▲ No need for pre printed stationery
▲ Excellent sort and search facilities
▲ Invoices shown on screen as you create them
▼ Constant need to input full five-digit account codes
▼ No final accounts reports available on nominal ledger
▼ No facility to run the ledgers in different accounting periods

IN BUSINESS
£149.90 • Cavalier Software • 01-639 6683

A comprehensive integrated package. Comprises 'Intact' accounts and 'Instock' stock control, available separately for £59.95 each. Well designed, easy to run and powerful enough for most businesses

PLUSES • MINUSES
▲ Other packages (eg: 'Teleadd' address book) can be added
▲ Comprehensive range of features when used as a package
▲ Sophisticated pricing and order features in Instock section
▲ Flexible accounts, traps most mistakes, useful summaries
▲ Interesting forward planning facility in stock control
▼ Manual gives you a confusing number of options

SMALL BUSINESS ACCOUNTS
£69.95 • NewStar • 0245 265017

Using the split-screen method, the prompt-driven program leads you through the hazards of double-entry book-keeping as painlessly as possible. Again, very useful demonstration files supplied with the program. It also handles VAT easily.

PLUSES • MINUSES
▲ Excellent system of screen prompts
▲ Good demonstration files
▲ One of the easiest double-entry systems for the novice
▼ Manual is really for the PC

SAGE POPULAR ACCOUNTS
£87 • Sagesoft • 091 2131555

An integrated accounts package consisting of purchase, sales and nominal ledgers. For another £50 you can buy Accounts Plus which also has invoicing and stock control. Aimed at small companies with the emphasis on ease of setting up. But a number of limitations, eg. the package cannot cope too easily with rapidly increasing numbers of customers and suppliers.

PLUSES • MINUSES
▲ Clean, tidy and logical screen layouts and menus
▲ Easy to set up and use with excellent documentation
▲ Good audit trails and VAT reports
▲ Can produce formatted trial balances
▼ Restrictive account numbering system
▼ Only single Nominal ledger and VAT analysis per item
▼ Does not cater for settlement discounts
▼ Won't print remittance advice slips
▼ Cramped on 9512 printer – need 17 pitch daisywheel

M.A.P PAYROLL
£199+VAT • MAP Systems • 061 624 5662

PLUSES • MINUSES
▲ Can amend and re-run at any stage (even after printing)
▲ Cash analysis is broken down into departments
▲ System prevents re-use or amendment of leavers
▲ Can hold up to 40 standard hourly and weekly wage rates
▼ No SSP calculation facility (but can record all amounts paid)
▼ Programs necessitate a lot of disc swapping
▼ No printed record of automatic tax code changes

SAGESOFT POPULAR PAYROLL
£61 • Sagesoft • 091 2131555

PLUSES • MINUSES
▲ Any or all employees payroll can be rerun at any stage
▲ Full pay history available for all employees and leavers
▲ Calculates average pay for holidays etc
▲ Very easy to install
▼ Limited number of additions/deductions
▼ Doesn't print a list of cheques
▼ No analysis of additions/deductions

COMPACT PAYROLL
£139.00 • Compact Software Ltd 0628 777456

EASY TO USE

PLUSES • MINUSES
▲ Supplied with test data
▲ Facility to change employees tax codes following budget
▲ Can run payroll for several companies
▲ Program available for PC compatibles – data transportable
▼ Must be run from the master discs
▼ Needs input form and check calculation for each employee
▼ Once payslips are printed nothing can be changed
▼ Most expensive payroll program

CAMSOFT PAYROLL
£60+VAT • Cambrian Software • 0766 831878

PLUSES • MINUSES
▲ Full payslip displayed on screen, any item can be amended
▲ Facility for freehand narrative on any payslip
▲ Uses M drive for programs to speed operation
▲ Built in on-screen help facility
▲ Search-sort routine for output to screen, printer or disc
▲ Uses alphanumeric employee codes
▼ Screen menus a bit untidy and sometimes difficult to follow
▼ No listing of cheques

CHECK ACCOUNT TWO
£14.95 • Molesoft • 0372 275053

Written specifically to keep track of personal household accounts. Can store the details of up to four different accounts per disc, records all withdrawals and deposits and will allow an

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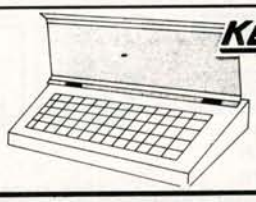

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inspection of the current state of any account at any time. It also reveals both the minimum and maximum figures to which the balance has either sunk or risen over previous or current months. Also incorporated are comprehensive interest-calculating options. A solid, competent package.

PLUSES • MINUSES

▲ No double-entry book-keeping or VAT returns to wrestle with
▲ Very easy to use
▲ Carries last month's spending levels forward into this month
▲ Tiered interest rate option available

EASI-ACCOUNTS SYSTEM

£23.95 • Arctan Computer Ventures 1 Foxwell Square, Southfields, Northampton NN3 5AT

Another PCW accounts package this time for the small business man or the very organised home user. Works on the traditional system of ledgers with up to 500 entries (or individual transactions) allowed per ledger.

PLUSES • MINUSES

▲ Comprehensive List and Search facilities
▲ Manual assumes you know nothing about accounting and is, on the whole, well-written
▼ Not a particularly easy package to use
▼ You would have to be exceptionally well-organised to use it

MONEY MANAGER PCW

£49.95 • Connect Software Ltd • 081 743 9792

This accounting package has been designed for individuals, small businesses and clubs – anyone who might find a larger accounting package daunting. The program concentrates on income and expenditure, each file covering a 12-month period with up to 500 entries per month.

PLUSES • MINUSES

▲ Up to 20 different kinds of accounts are catered for
▲ Up to 50 transaction codes help categorise income and expenditure
▲ Needs little computer or accounting expertise
▲ Information can be displayed in the form of a bar or pie chart
▼ Too limited for bigger businesses
▼ Over-featured for domestic use

UTILITIES

XFORMAT2

£9.95 • Moonstone • 041 941 3120

A handy utility to provide more space on a disc. Space is created during disc formatting; the program is used in conjunction with CP/M, and gives extra room on both A & B drive discs.

PLUSES • MINUSES

▲ 19k extra for A drive discs
▲ 78k extra for B drive discs
▲ 32 extra A drive entries
▲ Very cheap for the benefits provided
▼ Can't copy and format at the same time
▼ 4k minimum blocks in B drive

FOREWORD

£44.95 • Software Imperative • 0225 425315

A text/ideas pre-processor, essential for anyone in the business of producing lengthy, structured pieces of work. You can build your document, moving &and inserting blocks with just one keypress (no block definition required). Very fast wordcounts and Find and Replace searches of either 'hidden' or 'shown' text units. Drop down menus make usage very easy.

PLUSES • MINUSES

▲ Quick and efficient and easy to use
▲ Versatile Save options
▲ Printout facility
▲ Works with 'foreground' option

PCW DRAW

£39.95 • HTB Computing • 0794 516279

Draughting package written specifically for the PCW machines. Program is teaming with features – built-in shapes and free-hand drawing facility – which, used with practice and imagination, could provide professional-looking output.

PLUSES • MINUSES

▲ Very comprehensive text entry and printout format options
▲ ZOOM facility allows you to edit small sections of a draught pixel by pixel
▲ Many useful functions: different line thicknesses, hatching ..
▲ Supports Kempston and AMX mice
▼ PCW Draw doesn't consider the PCW's screen aspect ratio: on-screen drawings look twice as high as wide

PCW TOOLKIT

£24.95 • Moonstone Computing • 041 941 3120

A user-friendly data recovery package for the PCW. Provided you can find the contents of the damaged file, roll out a new one, sector by sector, on M using PASTE.

PLUSES • MINUSES

▲ Perfect for the complete novice
▲ Clear, confidence-boosting manual
▲ Can recover data varying in amounts from a few bytes to a complete disc.

PRO-PERFORMER

£59.90 • Electromusic Research • 0702 335747

The only real musical add-on for the PCW. Easy to use software runs on CP/M, has a wide variety of powerful features and is icon-driven. Sophisticated recording facilities and the program will allow you to save compositions as tracks, songs or performances. Ideal for pop and classical musicians.

PLUSES • MINUSES

▲ Icon-based screen
▲ Can record lines independently or in an arrangement
▲ Punch-in editing facilities
▲ Facility for slow recording and fast playback
▲ Step-time recording for strict in tempo lines
▲ Tracks can be looped (made to repeat)
▼ Manual glosses over arrangements
▼ Can't edit notes individually
▼ No musical notation anywhere

JOB ESTIMATING & PRODUCT COSTING

£79.90 each • Cornix Software 0243 219969

Both programs aim to provide help to small businesses by keeping track of costs. You break down the product you're costing or the job you're doing into a series of costing lines – recording quantity and price per component. Program analyses profit margins and can produce customer printouts.

PLUSES • MINUSES

▲ Excellently-written manuals
▲ Simple and robust to use
▲ Changes in material costings instantly reflected n all quotes
▲ Neat way of doing on-the-spot quotes
▼ Only suitable for small to medium-sized businesses
▼ Can't add new components to a description

TEMPDISC 8.2

£19.95 • Thurston Techniques 0395 277496 8512s only

USEFUL

Disc of ready-made templates to be used inside LocoScript.2. All you have to do is find the particular template to suit your requirements and then fill in the details. Vast selection of borders is excellent for personalising labels and envelopes.

PLUSES • MINUSES

▲ Has included files to complement LocoMail's invoicing facilities
▲ Very easy to use
▲ Vast range of templates available
▼ Not so good if you don't like lots of visual trimmings

BRAINSTORM

£29.99 • Brainstorm Software Ltd 0895 677845

A new improved version, reconfigured for easier use on the PCW. Works as an 'ideas processor'; you throw your ideas in any order and then use the program to rearrange them and impose a structure.

PLUSES • MINUSES

▲ Quick and efficient and easy to use
▲ Encourages structured thinking
▲ Versatile; many different editing facilities
▲ Results can be fed into a word processor for polishing up
▼ Namesakes must be exact matches
▼ Manual is on disc, so you can't consult while using BrainStorm unless you print it out

FORMS BOX COMPENDIUM

£19.95 • Disc Design • 0337 7444

Fully compatible with LocoScript 1 and 2, this disc provides ***70 different kinds of forms for home and office use. You can either fill them in on the screen, save and print them out or print them out and fill them in later. A solid, no frills product.***

PLUSES • MINUSES

▲ Very easy to use
▼ Will only print out on A4 size paper

POOLS MASTER

£19.95 • Intraset Ltd • 02572 76800

This program helps you select the numbers to cross on your pools coupon taking its recommendations on the recent form of each team or simply on the basis of sequence prediction (going on the numbers which have provided draws in the past).

PLUSES • MINUSES

▲ Very easy to use
▲ More accurate than the newspaper pundits
▼ Entering form results from week to week is tedious

LOCOFONT I

£19.95 • Locomotive Software (0306 740606) 8000s only

A selection of new fonts to help you break out of the standard LocoScript typeface. There's a very good selection of styles to choose from: 'handwritten' styles look very good as do the Copperplate and Script styles. The Roman and Standard fonts are more practical. The new characters are reproduced very well indeed. A further six fonts are available, including Old English and flowing script, on LocoFont II for £14.95.

PLUSES • MINUSES

▲ Eight new fonts, one coming for free
▲ Each style supports all accents, characters, etc.
▲ Relatively cheap and easy to use
▲ Can break out of that one-pattern printout.
▼ Can't mix styles in one document
▼ Limitations of a 16 dot pattern means that the quality cannot be brilliant

PS HEADINGS

£11.95 • Orb Systems • 081 690 8534

An updated version of the original product, with a major improvement in speed. A must for all Protext users who need to incorporate high quality large print for letter headings and so on. Facility to alter stylistic details such as shading, underlining and triple-strike printing.

PLUSES • MINUSES

▲ Easy to use
▲ Range of styles
▲ Good manual
▼ Only one font available (although in two sizes)

TAS-SIGN

£29.95 • Tasman Software • 0532 438301

Takes time to print out but you can print signs of up to five lines of text up to seven inches high with up to 32 characters in each. Four fonts, eight hatching patterns, and you can print lengthways on continuous paper for long signs.

PLUSES • MINUSES

▲ Wide range of fonts and shadings
▲ Long signs will print out in 'landscape ' (sideways) format
▼ Long signs take time
▼ Some symbols (yen signs etc) won't print out on PCW

GILLIGAN'S GUIDE

£29.95 – 49.95 • NG Gilligan • 0629 56347

A geographic information program based on the Ordnance Survey system. Concentrates on a given area loosely 15 square miles; it will list all the places included on the map in alphabetical order with their grid references. Also gives you information about the sites and will locate them on the map.You can also interrogate the system so that it only gives you details and locations of sites of special interest.

PLUSES • MINUSES

▲ A thorough, versatile and easy to use package
▲ System can be interrogated in a number of interesting ways
▲ Breaks sites down into areas of specific interest
▲ You can commission you own made-to-measure guides

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PLUSES • MINUSES
▲ Excellent manual with helpful practice exercises
▲ Comprehensive list of ready-made latitudes and longitudes supplied
▲ Cycle option transports you forward a month at a time so that you can chart the stars' progress
▼ Screen displays could be more exciting
▼ Moon and planets aren't included

POCKET DATADATE
£24.95 • A4 Ideas • 0249 815082

An invaluable utility for those who crave date-related trivia. Fully operational under LocoScript 2, Pocket Datadate even prints filofax-sized text.

PLUSES • MINUSES
▲ Program recently updated
▲ Very informative
▲ Ideal for quizmasters
▼ Only works with LocoScript 2
▼ Documentation currently on disc

PCW SUPERDOS
£29.95 • Encyclasoft • 0270 811890

Fills the gap between the friendliness of LocoScript and sparsity of CP/M. Has the ability to copy multiple files at once, and can back up an entire directory.

PLUSES • MINUSES
▲ Printable 'notepad' facility
▲ Makes CP/M less daunting to use
▼ Need to leave SuperDOS for some functions

FACTOTUM
£14.95 • Tudor Systems • 0622 861775

The combination of LocoScript 2, LocoFile and LocoMail will give you access to this extremely useful catalogue of information. As well as a diary, incorporating special date reminders, there is an address and telephone list, and a tax planner.

PLUSES • MINUSES
▲ Works from LocoScript
▲ Very efficient letters section
▲ Easy to use
▼ Poor presentation
▼ Won't work with an unexpanded 8256
▼ Assumes knowledge of LocoScript

SUPERZAP
Public Domain • Various suppliers

A disc editor with a difference – one key commands taken from adequate menus permit easy operation. Superzap allows you to examine both the structure and contents of the M Drive. Lack of print function is an irritating pitfall -this command is even disabled in CP/M

PLUSES • MINUSES
▲ Very easy to use
▲ Simple one key commands
▲ Menu driven
▲ Fast 'find' function
▼ No copier
▼ Numbers can only be entered in hex

DATA DIARY
£16.95 • A4 Ideas • 0249 815082

More PCW-generated diary inserts for use at home or in the office. The program works from within LocoScript so you can make use of all LocoScript 2's text and style enhancements. Inserts feature year to a page calendars, month at a glance planners and page a day formats.

PLUSES • MINUSES
▲ Buy it at any time of the year and you will be supplied with next 12 months' supply
▲ 2 versions available – for A4-size and Filofax-size printout
▲ A solid, no-frills product that's easy to use

INVESTOR
£29.95 • B & BB Software • 0240 242946

Program has been designed to assist the share-owner in the management of a portfolio and to help in the choice of shares to buy and sell. It allows up to 300 stocks, shares or unit trusts to be kept in its library. Stocks are listed in order of their performance and you can call up graphs of price movement for individual stocks. Good, easy to follow manual.

PLUSES • MINUSES
▲ Records share-holdings, dividends and cash accounts
▲ Dividend printout for tax purposes
▲ Four methods of share price analysis
▼ No ability to calculate taxable gains
▼ Graphs are small and lack expansion facility
▼ 9512 owners won't be able to print out the graphics

PERSONAL TAX PLANNER
£24.95 • Digita International • 0395 270273

Simple program which asks you all the questions relevant to your year's tax affairs, and prepares your tax return claim (or bill!) Can, for example, find out whether married couples would be better assessed separately or not. Personal Tax Planner is updated every year – look out for the most recent version following March"s budget .

PLUSES • MINUSES
▲ Simple to use
▲ Needs a minimum knowledge of the tax law
▲ Forces you to keep your tax details in one place
▼ Limited application – might only use it once a year
▼ Program updates (for a new allowance level) cost £10

KNIFE PLUS
£19.95 • Hisoft • 0525 718181

An essential tool for retrieving data from corrupted discs. Knife Plus will copy all uncorrupted sectors on to a fresh disc which you can then patch up without risking the original.

PLUSES • MINUSES
▲ Copies all uncorrupted data from damaged discs
▲ If boot sector damaged, will copy good boot sector onto disc
▼ Requires some knowledge of basic disc structure
▼ Manual not written for beginners

WISE ONE
£34.95 • Swallowsoft Publications 0420 63793

An expert system – you input rules and information and Wise One becomes an 'intelligent' program which can, for example, do simple diagnoses according to symptoms you type in.

PLUSES • MINUSES
▲ Power to be genuinely useful
▲ Elementary arithmetic
▲ Help screens can be set up for the user
▼ Obscure way of writing rules – need programming instinct
▼ Manual dry and academic

FLIPPER 2 PLUS
£29.95 • Software Imperative 0225 425315 9512/8512 only.

USEFUL

Can do everything the original Flipper did and more. You can now flip Mini Office and LocoFile and will have no problems with whatever version of LocoScript you're using.

PLUSES • MINUSES
▲ Easier to install than its predecessor
▲ Can flip between environments in as little as 2 seconds
▲ Professionally-presented documentation
▲ Works with most CP/M programs, LocoScript and BASIC
▼ Still won't work with many self-loading games
▼ Be careful of state of printer and disc drives when flipping.

SUPER TYPE II
£14.95 • Digita International • 0395 270273

A program for users of LocoScript and CP/M programs, which modifies the fonts used by the PCW printer. SuperType has 4 'business' and 'novelty' fonts. It works by directly altering the relevant files for LocoScript or CP/M, so you only need run it once – after that, the new chosen font is available.

PLUSES • MINUSES
▲ Once installed, you can totally forget it's there
▲ Genuinely useful range of fonts available
▲ All LocoScript's print size and style options still work
▼ You can't mix different fonts in the same document

DAATAFAX
Basic version £39.95 (with Microfile £49.95/with mouse £79.95) • Kempston Data 0234 855666

Used with personal ring-binder, it helps you keep track of names, addresses and appointments. Prints out data in a form that will fit the average organiser.

PLUSES • MINUSES
▲ Flexible and easy to use; saves buying inserts
▼ Not very sophisticated: keeping it up to date is tedious

DHCP 12-TRACK SEQUENCER
£45 • DHCP• 0440 61207

Add-on 'recording studio' for the PCW, consisting of MIDI interface and software. 12-track polyphonic capacity

PLUSES • MINUSES
▲ Fun to use
▲ Can cope with quite advanced instruments
▲ Cheaper than its competitor
▲ Tracks can be bounced to enable several tracks to all be put into one
▲ Looping can start/end at any bar
▼ Manual is skimpy
▼ No editing possible without re-recording whole tracks

DTP

THE COMPOSER'S PEN
£75.00 (£30.00 pocket version) • Composit Software • 0952 595436

A sophisticated program which allows you to write musical manuscripts, complete with time signatures, key signatures and any other notation you require. Changes to the manuscript can easily be accomplished, and it can even transpose music into different keys. A vital tool for the composer of every kind of music.

PLUSES • MINUSES
▲ Good print quality
▲ Allows multi-part compositions
▲ Easy to use
▲ Complete range of musical notation
▲ Transposes from key to key
▼ Slow in use

NEWSDESK INTERNATIONAL
£25 (with lightpen £50) • The Electric Studio 0462 420222

Versatile package with a very wide range of graphics facilities and high quality headline text. Page make-up is flexible, though the program can be a bit cumbersome, mainly in text handling. Same graphics facilities as Electric Studio's 'Art' package which it supersedes.

PLUSES • MINUSES
▲ Good control over the elements on the page
▲ Powerful graphics facilities
▲ Good quality print in headlines and large fonts
▲ Can use font editor to create your own high quality fonts
▼ Text-handling slow and cumbersome; editing is difficult

STOP PRESS
£49.95 • Database • 051 3572961

An excellent DTP package, very strong on graphics, very well designed, and once you get used to it, very easy to use. Sophisticated text handling features such as autoflow, but can't edit text – that all has to be done in your word processor before flowing the text in. Wide range of fonts.

PLUSES • MINUSES
▲ Excellent graphics facilities, good as any graphics program
▲ Wide range of text styles with text autoflow
▲ Menu and key commands system suits beginner and expert
▼ No text editing ability

LATE EXTRA
£19.50 • Exemplar Designs • PO Box 683, Bath, BA1 1XU

A Stop Press add-on consisting of a collection of 11 fonts that cover the range of type styles and sizes needed to create a balanced page. Also supplied on disc is a 13-page book , describing how to create your own professionally produced publication. Allows you to create a good-looking page with clear text.

PLUSES • MINUSES
▲ Good range of 11 complementary fonts
▲ Can adapt template for own use
▼ Time-consuming
▼ Text needs reducing for best results

MICRODESIGN II
£59.95 • Creative Technology • 0889 567160

The ultimate DTP package for sheer printout quality; Creative Technology have treated words and graphics as being equally important, hence the program's 'integrated page processor' label. Runs on all three machines with high quality results.

PLUSES • MINUSES
▲ Has full 24-pin printer compatibility
▲ Easy and fun to use
▲ Excellent text-editing facilities

SCHOOLS OUT/JUNIOR PLAYTIME

Two games from DGC Software . Schools Out comprises Hangman, Wordsearch, Junior Crossgrid, Four in a Row and Reversi for the 7-14 year old. Junior Playtime has 10 fun games for the 4-8 year old.
8000+Value Verdict 17/20
RRP £14.95 each

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Jr.Playtime £10.99	Order No.8620
Price for both £19.99	Order No.8621

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OUR PRICE £14.95.
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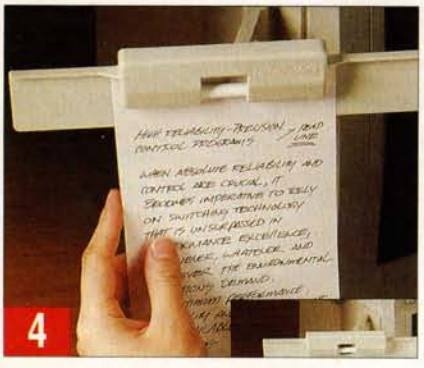

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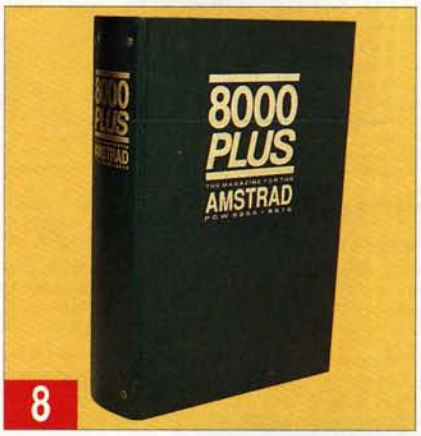

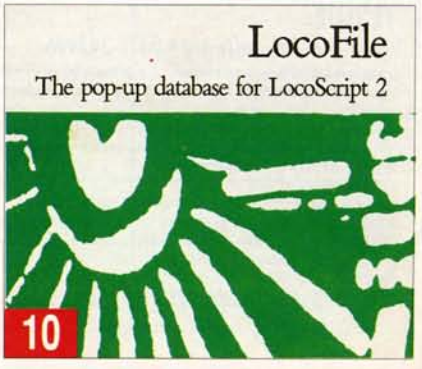

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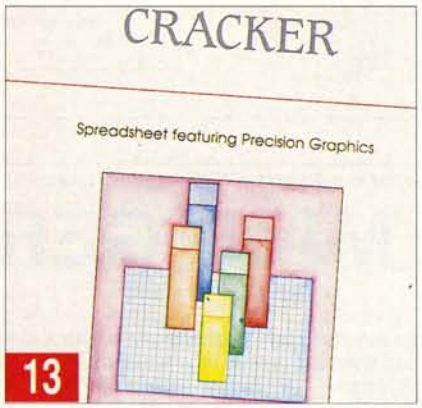

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The program includes many helpful features, such as pop-up claculator, context-sensitive help windows and macro comands. The Money Manager package has over 25,000 users in the UK alone. It is the ideal program for people who find that traditional accountancy programs are too complicated, unwieldy and time-consuming for their requirements.

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VISA Access AMERICAN EXPRESS

Postscript

Welcome to Postscript, the pages in which you have your say!

This month, we've letters from all kinds of exotic locations - Nassau, Germany, Spain, Eastbourne - the list was endless. So, pull up a chair, and get ready for competition critics, Flipper flops, disc drive doctoring and much, much more! Keep those letters flooding in, to Postscript, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW. Happy reading!

Fowl play

Dear Sophie, just a note to say,
Your staff must 'Get the Bird',
I find that for your Christmas quiz,
Their adding is absurd.

It seems there are Two Turtle Doves,
A Partridge and Three Hens,
And then there are Four Colley Birds,
The total never ends.

Upon a nest I found Six Geese,
And seven Swans I spied.
The total is not twenty one,
But two more birds beside.

So if your questions are quite fair,
The fourth should have a 'd'.
Then if you've read the carol,
The answer's twenty three!!
Alan H. Stredwick (67 years young)
Eastbourne, East Sussex.

8000 PLUS: *It may not surprise you to learn that you are not the only person to have demanded a recount over our Christmas competition, Alan, although you were the only person to couch the observation in such poetic form! Of course, the mistake was entirely deliberate, and was put there in the interests of all our readers. Just think of the benefits which the 'error' has brought you all; not only have you been able to exercise your mathematical skills, you have also become the nation's 27,000 best singers of The Twelve Days of Christmas! You see, it's not just your PCW prowess that we are aiming to perfect in the pages of 8000 Plus. We hope that the quiz helped bring 1989..er, 1990, to an entertaining close.*

Tip top?

I was most interested in Rob Ainsley's booklet about LocoScript which came with the January issue, but I disagree with Tip 28, about finding how many pages a document has. I find that the easiest way is to highlight the required file, then press f5 followed by 'Inspect Document'. This gives the first and last page numbers, and also enables me to type in a brief description of what the document is about. Using John Gledhill's Catloco program (October issue), I can then keep track of my files, and if I wish to, I can write the number of pages alongside the description. The use of this program also solves the problem of listing files for 9512 owners.
Peter Watson
Hassocks, West Sussex

8000 Plus: *You are quite right to point out the easier way to carry out the page count procedure in LocoScript, Peter. However, the tip you mention does actually refer to LocoScript 1, where it remains the only way of counting pages without editing the document. Consider our wrists firmly slapped for not indicating the version of LocoScript to which the tip applied; the January issue, it seems, caused more number blindness among us than we realised...*

Lux of the draw

Several times you have given warning not to send payment for goods on mail order. I am sure this is a very necessary warning, but not much good for those of your readers who live outside Great Britain, since most companies require cash/cheque with order, which is very understandable.

With this in mind I would like to congratulate Luxsoft (Basic Needs) for service over and beyond that which can be considered normal – I sent my order off (with cheque) and the goods arrived one week later, despite the Christmas rush. No better service could be achieved, and the program works a treat!!

I wonder if it would be possible in the Good Software File to include the addresses of the companies as well as the telephone number. I am sure that other overseas readers find it irksome (with different time zones, and so on) to telephone for information, which is often long winded and too complicated to take in over the telephone, especially when the connections often leave much to be desired!

Please accept my congratulations on your excellent magazine, which somehow manages to bridge the gulf between knowledge and newcomers to PCWs.
Anne Bischoff
Bad Driburg, Germany

8000 Plus: *Including addresses as well as telephone numbers for suppliers mentioned in the magazine is a good idea. The only problem with the Good Software File is the fact that space is so limited. We would have to omit several of the entries each month in order to accommodate even a two line address for each listing. However, there is no reason why the inclusion of addresses should not be able to feature elsewhere in the magazine – such as in our reviews.*

We were pleased to hear about your success story with Luxsoft – very prompt service indeed, considering the distance and the time of year. It really does prove to other suppliers out there that blaming the Christmas post for late deliveries is a very feeble excuse!

Chips aren't down

I have a PCW 8512 which recently gave problems with both disc drives. The computer would not boot at first and once booted would often display "B drive not fitted". Even if this did not appear a "Drive not ready" message would often be displayed when an attempt to read a disc in either drive was made.

I wasted a lot of time changing chips, but to no avail. The problem turned out to be the little rubber belts in the drives. They were perished and stretched so that they slipped. They are easy to change, however, and readily available from local electronics dealers since similar belts are used in cassette players and so on. They only cost a few pence ($2 here in Nassau).

There are only 2 electrical connectors and four screws holding each drive in place, but it's helpful to have a ➤

long (15 cm shaft) Phillips screwdriver to reach the screws.

Once the disc drive is out you have to take off the metal casing (four screws) and then remove the two screws holding the large circuit board in place. This allows you to lift the board a little and change the belt underneath without disconnecting any of the leads.

So don't despair, Amstraders, you may not have to buy new disc drives after all... Just a couple of £1 rubber belts you can fit yourself if you are even a little bit handy!

F B Banks
Natural Sciences Division,
College of the Bahamas, Nassau.

8000 Plus: *Thanks for a helpful tip, Mr Banks! However, 8000 Plus will have to send a delegation out to inspect your work to ensure that it is up to scratch. Kindly reserve four places on the beach for us, and a round of pina coladas.*

Code comfort

While I agree with Tim Smith ('Catching Code', December), there is one more factor to be considered.

Many viruses install themselves on the operating system 'boot' or 'system' disc because it has to be read between programs or to carry out certain functions. Unlike most other operating systems, LocoScript and CP/M Plus are read once from the start of day (or 'boot') disc and thereafter from banked memory. So a LocoScript or CP/M Plus start of day disc can be put away immediately its work is finished and a 'boot' disc virus does not normally get the chance to infect it before the computer is switched off.

However, with the advent of hard discs that can autoload either LocoScript or CP/M, it will be easier to write a viable 'boot' disc virus for the PCW. This is unlikely to happen for the reasons given by Tim Smith but hard disc users should guard against the possibility in the usual ways and by keeping a backup of all their LocoScript and CP/M 'system' files and programs that is known to be 'clean'.

Then, at the very worst, they will only need to reformat the hard disc and re-install the 'clean' files along with the data files which they back up regularly.

John R Hudson
Huddersfield

8000 Plus: *Good point, John.*

Back Flip (I)

Firstly may I thank you for your magazine which continues to be excellent, and even better now that you have curbed your tendency for ridiculous colour print on colour background.

You have expressed an interest in your readers seeing Amstrad machines in various T.V. and other media situations. So I am sure you will be delighted to hear that I think I actually saw 8000 PLUS on the shelves of "THE KABIN" (news/con/tab) in Coronation Street. What I don't understand is why it was on the 'top shelf' ...

I have 'Flipper 2' which I use with the SCA Rampac to flip between CPM and LocoScript, but I frequently get the high pitched tone that Flipper say may occasionally be experienced. I am totally unable to determine what circumstances will produce this irritating effect which can only be reversed by re-flipping and either inserting or ejecting one or other of the discs in my 9512 with two drives. Furthermore (though unconnected with the 'screech' I also 'lose' the printer on too many occasions, and I get the dreaded 'PRINTER FAILED' or similar, unless I reset the printer before and after flipping. A flipping nuisance. Please help.

Ian Lee
Kenton, Middx.

8000 Plus: *I say, 8000 Plus at the Kabin? It probably belonged to Mavis. Now, on to Flipper. The screeching you describe can be a RamPac fault, although it is more likely to be down to the execution of the [SHIFT][EXTRA][EXIT] sequence necessary for environment switching. If you press [EXIT] before [SHIFT] and [EXTRA], the same screech will occur. If you are doing it in the right order, it could be that your keyboard is at fault, generating illegal keypresses.*

As far as the printer loss goes, the Flipper manual does stress that you must reset the printer if you want to use it in both environments. So, the message is, either reset it first, or don't attempt to print in the two at once.

Back Flip (II)

Can somebody please tell my why Flipper 2+ crashes about every third time I try to boot it? It invariably happens at the same place, just before it records that user spell has been accepted. So far, I have found that it always carries though to completion satisfactorily if I start afresh. My machine is an Amstrad 9512, so I have Locoscript 2. Once loaded Flipper works satisfactorily. I wrote to Software Imperative with SAE enclosed, but had no reply. Lets hope that it will work with Flipper 3, when available.

Dr M A T Rogers, Oxford

8000 Plus: *Hmm, you imply that the program crashes sporadically; that rules out the question of compatibility. It could be a faulty drive; you don't mention whether you have had difficulties with other software in your collection. Is your PCW ready for a service? As with most software, there is no halfway house; either it works, or it doesn't, and problems such as the one described are usually attributable to hardware performance.*

Chemical solution

As one who lives on borrowed time (i.e. passed the biblical age limit), and exists on a reduced income, I offer an idea calculated to gladden the hearts of fellow skinflints. Micro Design and Proscan are far beyond our reach as is memory improvement, hence this 'cheapskates special'.

The object is to make copies of photographs which normally do not lend themselves to scanning. My own experience is that the copies turn out much too dark to be scanned successfully because of the limitations of the copier regarding light and dark passages.

In this idea you can use any colour print and turn it into a good black and white copy with excellent scanning properties. It involves merely copying as much detail as you need on the photo with India ink (waterproof) and a fine mapping pen. A number of fine strokes produce a good 'pen sketch'. The print is then immersed in a solution of three tablespoonfuls of Potassium Ferricyanide to a quart of water; preferably in a tray where it can be gently rocked to ensure even bleaching. After a short while the photo turns brown and then disappears altogether leaving you with your masterpiece in ink and a light background. It will now need 'fixing' with Hypo (Sodium Thiosulphate) and that's it!

Good scanning and be careful, chemicals are dangerous to health.

James Cassell,
Motril, Granada, Spain

8000 Plus: *Thanks for the tip – have you been getting too much sun?*

Doomed?

Since purchasing my good old PCW a couple of years ago, I have staunchly defended its honour against the computer snobs who see it as little more than a toy. It has always satisfied my business and personal computing needs with ease, and I have never considered upgrading to a different model – until now.

Don't get me wrong, I still think it is a superb machine, and its versatility is often understated. Unfortunately, it is still thought of as just a word processor, and nothing more. Even Amstrad do nothing to dispel this myth. The reason for my change of heart, is the apparent lack of support that most PCW related companies seem to give.

The Business Computer Fair's "PCW Village" was a disgrace with only a handful of exhibitors bothering to turn up. The recent Computer Shopper Show was supposed to be the "biggest PCW event", but it was yet another disappointment. Five pounds for entry, and another five for the car park, to see, at a generous guess, around a dozen ➤

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PCW related stands. Even the Future Publishing stand failed to admit to being the publishers of 8000 Plus. Are companies ashamed to be publicly supporting the PCW?

It is this attitude, rather than any shortfalls of the machine itself that have persuaded me that 1991 will be the year when I reluctantly upgrade to a PC.
Disillusioned of Guildford

8000 Plus: *Dare we suggest that you are being a tad pessimistic, Disillusioned? Your comments about the two exhibitions last year are noted, although I do think that it is the organisers of the shows rather than the exhibitors who should take the blame. In their efforts to draw in the crowds, they have a strange tendency to make their shows the 'biggest event ever' for any type of machine. Exhibitors do not just 'fail' to turn up – stands cost money. No, I don't think that companies are ashamed to be seen supporting the PCW; you certainly won't find any bashfulness among the advertisers in 8000 Plus. The machine, as you so rightly say, is often 'understated', but it falls to the rest of us to set the record straight. It's all about supply and demand – if we keep supplying our collective enthusiasm for the PCW, then the demand for new products to meet our needs will keep coming. Upgrade if you have to, but don't stay disillusioned for ever.*

Disc-ussions

Regarding Simon Archer's letter published in the November issue on the right type of disc to use. There have been many comments in magazines in the past regarding single and double density discs.

My experience is that the single density disc is good enough for the 9512 or the B drive of the 8512. Over a four year period, working five days a week and eight hours per day I have been using the same discs in the 8512 for a postal system at work. This is in excess of 8300 hours running on the original discs. Both are Amsoft CF2 single density discs and are in fairly dusty conditions but with no faults. Of course I have backups, but these have never been used.

At home I have also been using the same discs on my own 8512 for over four years and have not had any problems.
John Murray
Canford Heath, Poole

8000 Plus: *Thanks for your letter, John.*

Prize collection

As a pensioner who now enjoys many happy hours using my upgraded PCW, (many thanks – Silicon City), I would like to add my congratulations to the many who compliment you on your magazine. Shortly after I purchased my PCW I tried many magazines and finally found the best! Looking through all my copies I find that somehow I have issues 1 & 2 missing. I have an unnumbered November 1986 and then an issue 3 – December 1986 and every issue after that. What months were issues 2 & 3 published? Finally, is there any value in my collection? Not that I really want to part with them but I would very much like a scanner and the cash would help!
Eric Dodworth
Bakewell, Derbyshire

8000 Plus: *Thanks for your letter, Mr Dodworth. I see that we have returned, once more, to our problem with numbers! The un-numbered issue which you have for November 1986 was infact, Issue 2. So, you are only missing Issue 1, from October 1986. Needless to say, your collection is priceless; do not part with it on any account! If you have a PCW user club in your area, you may be able to borrow a fellow members scanner for a while. Alternatively, we'll have to ask those generous people at Creative Technology to donate a second one for a future competition, and then you could be in with a chance of winning one!*

Tee for you?

I have read in recent weeks letters from your readers who ask about the availability of software for the PCW, and that is the reason for this correspondence. I am an avid reader of 8000 Plus, which has to be by far the best journal for the PCW. I therefore have a large number of back issues.

I have to use a PC where I work at present, although using my trusty PCW for my business affairs (and other entertainment) at home. We have recently been enjoying two versions of golf simulation program on the PC, and this prompted me to refer back to your past publications to see if there is any similar such software for the PCW. Imagine my surprise, when in Issue 11 (August 1987) I found a review of a program called 'Leaderboard' (a copy of which I duly enclose), which sounded quite similar in concept to the PC games. I thus rang the software supplier (US Gold) to find that they were still in business, but no longer marketing 'Leaderboard'. Attempts to purchase a copy of the original software proved fruitless.

I turn, therefore, to 8000 Plus for help. Can you, or anyone out there, help in my quest to find a golf simulation program for the PCW? Is it possible to obtain 'Leaderboard' from software shops, or are there any other similar or better program available from other suppliers? I look forward to any further information you can provide, as a frustrated PCW golfer, and even more frustrated amateur golfer.
David J Lythall, Hertford, Herts.

8000 Plus: *Unfortunately, Leaderboard does seem to have bitten the fairway. You may be able to get hold of a copy at a second hand computer fair such as the 'All Formats' show which takes place fairly regularly. Other than that, there could be a golf game in the public domain; try contacting Advantage Software, at 56 Bath Road, Cheltenham, GL53 7HJ (telephone 0242 224340), or Gerry Austin at PCW World, Cotswold House, Cradley Heath, Warley, West Midlands (telephone 0384 66269). Perhaps someone reading your letter has got a copy of Leaderboard which they would be willing to sell? Happy hunting!*

Daisy pains

With reference to the letter 'Pick a daisy' December 8000 Plus. I had been using a 9512 with standard printer for over three years, when the printer went wrong. I thought it was printing but the hammer wasn't hitting the wheel hard enough to print. The trouble was the plastic arm behind the solenoid was split (it may be a common fault). It was repaired by Messrs Avcom Electronics, Market Arcade, Fore Street, Kingsbridge, (0548) 856279 for £23. It is now healthy again. Incidentally when it is OK and the solenoid is pushed forward by hand the hammer will not reach the wheel but the inertia carries it forward. Perhaps we could have some information on printer repair in 8000 Plus sometime.
John Deem
Kingsbridge, Devon.

8000 Plus: *So it's blackmail is it, John? Kingsbridge will be overrun by the the nation's 9512-owning public unless we come up with a feature on printer repairs? OK, its a deal. Stand by for said article in the near future, and I'll have to appease the Devon Tourist Board later. Thanks for your letter.*

Generation game

I have just been reading Brian Mitchell's letter in January's edition as I too am doing a family history and having bought Genny, I think he should give thought to whether he wants just a tree or a family history with warts and all. Genny is excellent for what it is meant to do, but as he will probably want to go back more than two hundred years he would be better using LocoScript 2 as it's search capabilities are good, and it is easy to insert any more data that come to light, a reference for every entry for instance mine is 2.1.5.1.6.6.2.4. I am the fourth issue and as there is over a thousand entries I doubt if Genny could handle them all. If he splits it into documents of families he shouldn't have any problem.
A Corrie, Kilmarnock, Ayrshire

8000 Plus: *Thanks for your advice.*

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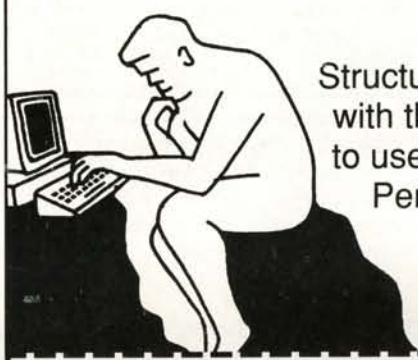

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Competition

Answer the questions below, and you could be the lucky winner of some first class business software!

Simple Accounts II, Job Estimating and Product Costing; three software tools that could totally re-organise your trade!

As the saying goes, from little acorns, mighty oak trees grow, and this month, we've got some first class software to give away which could help set your small business on the road to expansion. Cornix Software, business experts, have very kindly donated three of their best-selling packages for this month's Back Page competition.

Top of the range is Simple Accounts II, the essential PCW accounts package for the small business owner. Simple Accounts is, as its name suggests, a straightforward, no-nonsense package, aimed at those of you find the jargon involved in matters accounting about as navigable as the Amazon on a foggy morning in February. Simple Accounts II represents a comprehensive yet easy-to-use package, which owes most of its efficacy to the fact that it sticks to the essentials. As well as a very thorough section on VAT, Simple Accounts II has a handy cross-reference facility, for checking and collating expenses on individual contracts. It also keeps close track of your debtors and creditors, and its well written manual helps guide you through the most turgid of accounting procedures.

The second and third packages in the Cornix range are Job Estimating and Product Costing. These are, of course, separate items, but they share the common denominator of costs. So, for example, if you needed to provide a client or customer with a quotation for some work you are carrying out, Job Estimating will come to the rescue. Both Job Estimating and Product Costing allow you to break your work down into a series of costing lines. That way, you are able to predict accurately just how much outlay you expect for a job, taking materials and labour into account, and what you should be expecting in return. Both programs have an option to provide on-the-spot quotes, and are fully backed up with clearly written manuals.

So, if your business could do with a spot of streamlining, why not roll up your sleeves and try your hand at this month's set of business related questions. It could result in your passport to multi-national status! Answers on a postcard, please, to Cornix Competition, 8000 Plus, 30 Monmouth Street, Bath, BA1 2BW. Entries to arrive no later than 26th February 1991.

1 Name the current Secretary of State for Trade and Industry.
a) Michael Heseltine b) Cecil Parkinson c) Peter Lilley

2 Who, in November of 1990, resigned as chairman of the Burton Group?
a) Sir Ralph Halpern b) Rupert Murdoch c) Edward Heath

3 What is the name of the chemicals conglomerate formerly headed by Sir John Harvey?
a) EMI b) ICI c) PCW

4 What kind of small business did former Prime Minister Margaret Thatcher's father run?
a) A chemist's b) a chip shop c) a grocer's

5 Who founded – and still runs – The Body Shop?
a) Anita Roddick b) Anita Harris c) Jane Fonda

NEXT MONTH!

LocoScript Special

As well as our regular two pages of LocoScript Surgery for beginners to the program, next month we've an extra page of queries from the more-experienced LocoScripters among you. We are also starting a new tutorial series on LocoFile, giving you a step by step guide to how to get the best out of the database member of the Locomotive software family.

Wide boy

In the March issue of 8000 Plus, we'll be looking at the new Citizen Swift 24x, a 24-pin dot matrix printer with a difference! The Swift is specifically designed for the output of wide format documents – such as spreadsheets – with its 136 column capacity. Among its other features are an optional colour kit, and five built in fonts. Don't miss it!

Up, up and away

Have you ever considered, while cruising in an aeroplane at 20,000 feet above a very deep ocean, that your life could in fact be in the hands of a PCW-trained pilot? Next month, we'll be looking at a flight simulation program, which assists in the preparation of pilots for the open skies. The program is also used to plan routes and prepare log books. And who better to evaluate the product than a real, live, pilot! Stand by for take off next month!

Carbon Copy

After this month's look at fabric ribbon re-inking, we will be turning our attention to DIY carbon ribbon replacement in the March issue. If you are thinking that refurbishing carbon ribbons is a process far removed from the realms of you and your kitchen table, you'd be right. However, there is a new kit available which enables you to *replace* the ribbon, retaining the original cassette for ever. So, if you want to save some money, and do your bit for conservation of the world's resources, don't miss next month's fully illustrated walkthrough!

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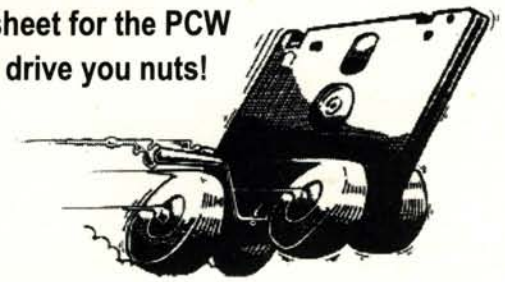

Cracker 2 turbo is the powerful, user friendly graphics spreadsheet specially written for the PCW 8256, 8512 and 9512. Fast and easy to use, with a wide variety of graph styles, why settle for a text-only spreadsheet when the best costs less?

Cracker 2 is capable of checking entries for error as data is keyed into a work sheet. Arithmetic, logic and syntax are all checked before being accepted.

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PS UK

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